

RURAL
WORLD

COLMAN'S RURAL WORLD

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

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COLMAN'S RURAL WORLD

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LEVI CHUBBUCK, Editor.

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NATURE'S TOUCHES.

"To impart to a home qualities which I believe this toast is designed to suggest, there must be a touch of nature's genial glow to bring it in line with the best things in the world."

The foregoing is a sentiment uttered by Mr. J. C. Birge in responding to the toast, "The Man With a Home," at the late Henry Shaw banquet, a report of which appears in another page of this issue. The sentiment is worthy of the consideration of farmers whose homes receive so many touches of "nature's genial glow." Do they appreciate the blessings that lie in this fact?

STATE AGRICULTURAL MEETINGS.

The program for the meetings at Fayette, to be held from the 18th to 14th of December, will include the State Swine Breeders', Horse Breeders', Poultry, Sheep and Live Stock Breeders' Associations, the State Grange and Good Roads people. These meetings are held under the auspices of the State Board of Agriculture, of which J. R. Rippey is secretary. There will be a number of prominent speakers present, among whom are: Aaron Jones, Master of National Grange; John McDermid, of Des Moines, Ia.; Hon. Norman J. Colman, of St. Louis; Hon. John H. Bothwell, of Sedalia; R. C. Clark of Fayette; Hon. C. F. Clark, Mexico; T. F. B. Botham, Chillicothe; Prof. H. J. Waters, dean of the Agricultural College; N. H. Gentry, of Sedalia; and Dr. R. H. Jesse, president of the State University.

EXPERIMENTS WITH ADULTERATED FOODS.

The Missouri Agricultural Experiment Station is making arrangements to make feeding trials of the adulterated foods that they are found on the markets. The millers of the state have called the station's attention to the extensive adulteration of mill feeds such as bran and ship-stuff, by the addition of ground corn cobs, clays, etc., which operates to the detriment of the farmer who purchases the feed as well as the miller who sells the adulterated product. The station will make trials of pure feeds and those adulterated and will notice the effect upon cattle, horses and hogs. The chemist will analyze the feeds and publish the effect the adulterations have upon the chemical composition. Similar work is now done in regard to commercial fertilizers.

THE DIGNITY OF FARMING.

The attention of RURAL WORLD readers is directed to the well-written and valuable article on Cold Storage that appears in this issue, and which was written especially for this paper. We wish the article might be read by every farmer in the land who is lacking in a proper appreciation of the importance and possibilities of his calling.

Possibly some, on reading the article, may ask how it can contribute to a higher appreciation of the business of farming? If there be those who raise that question, we ask them to stop for a moment and contemplate the fact that the enterprise described in the article referred to, involving the expenditure of enormous sums of money in construction, maintenance and operating expenses, employing the latest triumphs of inventive and mechanical genius and the most recent developments of electrical, chemical and physical science, co-operating with vast transportation systems and all being directed by the highest type of executive and business ability—for what purpose? To take from the hand of the farmer the product of the field, the orchard, the garden, the dairy and the poultry yard and so handle it that the producer and the consumer will be benefited. And enterprises similar to the St. Louis Cold Storage and Refrigerating Company are to be found in all the large market centers.

If capital, science, inventive genius and business acumen are demanded for the successful handling of meats, butters, eggs, fruits and other farm products after they leave the farm and until they shall be put into the hands of the consumer, is it presumptuous to assume that the grower of the apple and making of the butter call for at least equal consideration and respect?

We fear, in fact know, that many farmers do not attach the proper importance to that which belongs to it, not realizing that farming, too, is a business that requires capital, the use of machinery, the adaptation of science and the exercise of skill high as is required in other lines of industry. Then in addition the farmer has to do with a factor the most marvelous of all—life. He, by processes that involve all the natural sciences, and with the aid of that unfathomable mystery, which we call life, produces the apple, the corn and the steer. Is it not a dignified calling?

We trust that the article will be read with interest and profit.

NEW SUBSCRIBERS.

Every subscriber will confer a great favor by helping to add new subscribers to our list. By sending a NEW name with his own the two can be had for only one dollar, and he can add other NEW names at fifty cents each as TRIAL subscribers, but no commission allowed at these very low terms. Renewals, unless accompanied by a new subscriber, must be at one dollar each. See address tag on each number, and don't fail to send renewal before the month named closes, or name will drop from the list. Do the best you can for the best and cheapest weekly farmers' paper published.

GOVERNOR COLMAN

Writes From Colman Camp, Ripley County, Mo.

Those among RURAL WORLD readers who have been readers for the last half century and have during that period made the personal acquaintance of the honored founder and still editor-in-chief of this paper, will not be surprised to know that Governor Colman and party of friends are having their annual hunt in Southeast Missouri; but doubtless there are many among our subscribers whose years range from two to three score who will be astonished at the fact. They will recall that from their earliest recollection they can remember hearing of Norman J. Colman as being actively identified with the agricultural affairs of the state and nation, and will think it impossible that he is still in such vigor as to enable him to go off to the woods for a three weeks' hunt. But it is possible—quite so; and in proof thereof we present the following letter from the Governor, written while far from the haunts of men. We are sure that the description he gives of the section of that country he is in will be read with interest by his many friends and the thousands of RURAL WORLD readers:

Dear Mr. Chubbuck and Others in the Office: I do not know that a letter from the swamp region of Missouri will interest you, but as it is a day of rest with me I will write you a few lines. While all this section of country is called a swamp, at this season of the year it is as dry land, or the most of it, as any land in Missouri. There must have been here in the distant past a great inland sea, and this swamp must have been the bottom of it. Here lie millions upon millions of acres of level, fertile land, a portion of it only subject to overflow, in months, and then return to the swamp or bottom land, where vegetation is much more bountiful. The stock is now in good order and has never tasted corn or hay. It is not necessary to own land here. The range is free to all comers, and a man with a few thousand dollars to invest in brood mares and in cows could go to raising cattle and mules and horses and make large profits. If a farm is wanted, land could be bought very cheap at about \$1.25 an acre, or small farms already cleared at about \$5 an acre.

But there are drawbacks to this section of country, one of which is residents are subject to the ague, and especially new comers, though all the natives I have seen look healthy. Much of the sickness is caused by the poor way of living and by the negligence of the observance of the laws that govern health. The water is excellent. We are drinking the water from Black River and I never drank better water—clear and cold. Drive wells invariably tap good water.

The few residents that live in this section are scattered five or six miles apart or more.

The land is very easily cleared by deadening and firing. Hickory, ash and oak abound and in the very low lands cypress grows to very great size.

This is the paradise for the hunter and fisherman. Deer, wild turkeys, squirrels, wildcats, raccoons, "possums," etc., abound in the Black and St. Francis rivers as good fishing is to be found as can be got anywhere in the United States. Bass, crappie, jack salmon, pike, cat, etc., are abundant and we are feasting on them nearly every meal. For meat we have venison cooked in various ways, and squirrels we have feasted on until we are almost tired of them, and as a further assortment we have wild turkey, duck, etc.

Our hunting party is very pleasantly located at the junction of the Black and Dan rivers. We have three tents, one for the dining and sitting room, and that opens into the sleeping tent; both tents heated by a Queen heater, which keeps everything warm in the coldest weather. Then close by is the kitchen tent, presided over by a good cook, who brings everything into the dining tent piping hot,



HUNTERS' CAMP IN THE OZARK MOUNTAINS, NEAR HOT SPRINGS, ARK.
By the Courtesy of the Iron Mountain Railroad Co.

well cooked and seasoned to the queen's taste. Marvelous appetites are enjoyed by the members of the club. Hunters and fishermen are proverbially good eaters, and they are good sleepers as well.

After supper, until about 9 o'clock, hunting and fishing tales are told and jolly times are indulged in. Then as retire and sound sleep and first-class morning begin. Our boss snorer, a member of our club, Capt. Wm. Eller of Auxvasse, Mo., is not with us this year, being unavoidably detained at home, and no member of the club is missed more. Whenever his gun cracked we knew a deer had fallen; and he is as expert with his fishing as he is with his No. 10 Remington. But we have snorers in camp trying hard to secure his distinction, and I am not sure but they will succeed before the hunt is over, but I will not give them away now.

Dr. Tolson of Mexico added to our usual assortment of game yesterday a tremendous big wildcat which he shot running, with his trusty rifle. He carefully preserved the skin and will have it dressed. We have 15 deer hounds with us and they make the forests ring with their music. A hunter cannot be in a more enviable spot than on his stand, with a full pack of hounds in pursuit of a deer coming direct to him. He would not at that time exchange places with Emperor William. We have had no cases yet of buck ague, but yesterday three of our party ran or rather walked into a flock of wild turkeys and one of them, the other two said, shook like an aspen, and he killed last year the biggest buck of the season with his rifle.

Well, in conclusion, we are having a very enjoyable outing and will remain here two or three weeks. N. J. C.
Nov. 11, 1900.

SECOND GROWTH SORGHUM.

What Shall I Do With It?

Editor RURAL WORLD: I have three acres of second growth sorghum, very thick on the ground and stands waist high. I have been advised to plow it under green. Will the editor or some RURAL WORLD reader kindly advise whether it has any value as a fertilizer or not. J. F. ATKINSON.

Cass Co., Mo.

While there might be a beneficial effect on the next succeeding crop, and possibly two or even three, crops, from plowing under a growth of sorghum, there would be nothing added to the store of essential plant food, namely, potash, phosphoric acid and nitrogen, because the sorghum plant must depend on the supply already in the soil for its needs. Partially decaying vegetable matter or any sort, forming humus, has a very beneficial effect on most soils, rendering them more friable, more retentive of water and more "lively," but all this may be accomplished without adding a particle to the quantity of the essential plant food elements named; in fact, there may be a stimulating effect which, under a system of farming which removes from the land successive crops and returns nothing, will be very exhausting.

The only class of plants that will return to the soil more than they took from it in making growth is the legume—clover, peas, beans, etc.—which have the power of gathering and using free nitrogen from the air. A crop of clover or of cowpeas plowed under will add to the soil a large quantity of nitrogen, and in such form as to be readily available for the use of succeeding crops. But it should be borne in mind in this connection that even the legumes add to the soil only the element of plant food—nitrogen. The thorough-going farmer must consider the ways and means of keeping up the supply of potash and phosphoric acid, both of which must be supplied if the fertility of the land is to be maintained. If the frost has not already killed the sorghum, we suggest that it should be harvested and fed, and the manure be returned to the soil.

WEEK BY WEEK.

Editor RURAL WORLD: Racks and troughs for feeding should be attended to before bad weather. It is very trying to me to saw and nail in freezing or cold, sloppy, or snowy weather. I had rather drive a dozen nails on warm days than one when the glass says zero.

Then the cellars should be looked after. Caves need more or less repairs every season. A good dry cellar, or cave, is a genuine blessing to the kitchen folks. All decaying trash, whether potatoes, cabbage, or any other thing, should be cast on the manure pile. I think the cave-or-cellar should be looked up a stove if it is very damp. Some vegetables spoil rapidly if kept damp.

There are more caves than cellars in these ends. This, I take it, is at least partly due to the fear of cyclones. They are regarded as safer than cellars. I have never read of anybody being injured in a cave, but I have where people had taken refuge in a cellar.

It seems that the oak is more liable to be struck by lightning than any other tree. The beech is almost immune. Hence I would think that oak trees had better be planted at some distance from the dwelling. Some men are always losing stock by lightning, and save themselves by insurance. But I have been insured for 30 years and have had more or less stock in that length of time, and thus far have never met with a loss, and hope I never may. But I keep well insured. I think insurance, all but life insurance, the proper thing for every farmer to carry.

There is one trait with certain adjusters that they think assists them in abating the damage, and that is to use lots of profanity while they are attending to the duty. If anything of the kind were to take place on my farm, I should order the adjuster to make himself scarce at once, nor should he stop on the order of his going. He should go at once.

To-day I felt fish hungry, so hitching up faithful Nell to the buggy, I rode to town to buy a mess. And a mess it was, when I came to look at them. "What's the matter with these fish. They have an ancient smell!" "O," rejoined the butcher, "they are no good. They are half rotten. We are going to send them back."

That is the trouble with other packages than fish. Rancid butter spoils the market, making people who buy butter pay a large price for that which is good. As I looked at those fish I wished I was back at the old homestead pond with hook and line. I would soon have a mess of fresh fish. I shall, if speeded, make a fish pond with this new free-people of mine, and stock it with catfish. I like the gentle art of angling; I am also partial to well-cooked fresh fish.

I once bought a couple of boxes of strawberries. They were very choice-looking on top, but underneath a couple of layers, the degradation was complete. The berries were under a layer of dirt. That man never sold me anything any more. I planted last spring several hundred plants of Wilson's Albany and Parker Earle. Both have prospered famously. Unless one has just moved to a new place where no berry bed has been planted, there can be no excuse for not having the strawberries in a family needs, if they are likely to be injured by oxidation or "rusting," take a quantity of good lard, add about 2 oz. of common resin, melt them slowly together, stirring as they cool. This may be applied with a brush or a cloth, just enough to give a thin coating to the metal surface to be protected. The resin prevents rancidity and the mixture obviates the ready access of air and moisture.

"TOBACCO CULTURE" is the title of a neat pamphlet just issued by the German Kall Works, 25 Nassau St., New York City. This publication treats quite fully about tobacco growing from the time of sowing seed to the marketing of the crop. It is a valuable publication and will be sent without charge to any planter who applies for it.

They were brought from Europe to this country. The secretary purposes to turn these dorrats loose and let them go. They are distinguished for their industry in making was. Their combs being as big as a stable door; i. e., they average about that size. I do not state these facts from personal knowledge. I am simply quoting. Bees are full of interest, especially in the rear parts. I have a nephew in northern Luzon, a first lieutenant. He probably knows.

Chickens to-day in town were bringing only five cents a pound. I have observed that when chickens are cheap the preacher gets his share of them. But when they are costly he becomes acquainted with pork, and such like truck. Preachers are human, you see.

I was, years ago, very skeptical about machinery. I was wont at times to deny its adaptability to its intended and advertised purposes. Now, however, I am loath to doubt anything. I believe in milking machines, riding plows, in short everything manufactured for a specific purpose. It is the golden age of machinery. America is the world's granary and also furnishes nine-tenths of the cotton world. I learn that the value of the cotton crop this year is greater than that of the corn crop. That is a little mortifying for us of Iowa, who are so fond of hallowing that corn is king. But for one I am glad for the cotton states. There is no envy of any species in my composition. I shall have a lot of corn to sell, but cotton doesn't affect that. So I say, "Hurrah for cotton!" EDWARD B. HEATON.
Iowa.

SHREDDED FODDER.

Editor RURAL WORLD: Will you or some of your readers give me some information as to the feeding value of shredded corn fodder for stock?

EMMETT WILLIAMSON.

Boone Co., Mo.

The feeding value of corn fodder is a variable quantity. Under ordinary conditions, and as usually grown and used, it would have no value as food for hogs; and yet it can be so grown, cured and harvested that stock hogs will eat enough of it in winter to give it considerable value. As a substitute for timothy hay to be fed to cows along with a grain ration of oats and bran (rich in protein) corn fodder properly cured is equal in feeding value to timothy hay. If to be fed to cows along with a grain ration made up largely of corn, both foods being deficient in protein or muscle making elements, and rich in carbohydrates, or heat-producing elements, it would not have more than one-third as much feeding value as would the same weight of good clover hay, the latter being rich in protein. So to answer the question as to the feeding value of corn fodder we must know how it is to be fed, that is, in what sort of combination, and to what class of animals. Speaking in general terms, corn fodder may be regarded as being equal in feeding value to timothy hay. Shredding corn fodder adds to its value by making it more easily eaten and less subject to waste.

PROTECTION AGAINST RUST.—For farm implements of all kinds having metal surfaces exposed, indeed, for all metals likely to be injured by oxidation or "rusting," take a quantity of good lard, add about 2 oz. of common resin, melt them slowly together, stirring as they cool. This may be applied with a brush or a cloth, just enough to give a thin coating to the metal surface to be protected. The resin prevents rancidity and the mixture obviates the ready access of air and moisture.

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SKETCHES IN NEBRASKA.

Editor RURAL WORLD: Immediately west of the Missouri river, the soil in Nebraska is a rich creamy color, lighter in weight than the upland clay of Missouri, somewhat open to good drainage, and of a quality which at once shows its productiveness. At Plattsmouth the Burlington railroad extends through a cut which is 90 feet deep, and here it is that a good view is to be obtained of the composition of the land. Through this great depth the soil maintains its sameness, and in contrast to the old red clays of Missouri, the land here appears newer. The earth walls of the Burlington and Missouri Pacific remain almost perpendicular. This is accounted for in the nature of the soil and because the rainfall here is much reduced, approaching as it does the sub-humid area of the Great Plains. Many, many things here interest me very impressively. I would mention the study of the rivers. Here it is that the principles of gravity and deflection and erosion are well displayed. The Missouri, sweeping down in mighty supremacy from the north, had in former years occupied territory which is now used by the La Platte. In time the great flood plain was modified by the vast deposit of soil, and the Missouri was forced eastward. All the flood plain north of the La Platte shows old river routes and former wanderings of the Missouri, and a few centuries ago the river flowed along near the bluffs between the towns of La Platte and Bellevue. This must have been before the famous journey of the Lewis and Clark expedition, as in many places the bluffs are still in the old position. Bellevue was a prominent crossing place for the Mormons in their movement west, and their old roadways are yet to be observed in the prairie lands west of the river. Peter Barry, for whom this county was named, was a great friend of the Mormons. Along the limestone bluffs of the Missouri and the La Platte I find a peculiar and rare fossil known as Fusulina cylindrica, or fossil wheat. This is a fossil shell about averaging in size that of the common wheat grains, and is the smallest fossil shell known. Some limestone strata are but a vast aggregation of the Fusulina.

As the reflective observer looks upon these historic rivers and their surroundings, he will have in mind many events in connection with this country. The Lewis and Clark exploration nearly a century ago will occupy thought. And then the geology of the land makes a study. Great strata of mineral earth are here found. And in the great bluffs between Omaha and Bellevue I find the finest quality of clay of a rich creamy color. It is as fine as flour, and is very beautiful placed in glass jars with layers of other colors of clay and sand. I have made such collections, and they make valuable additions to cabinets of geological studies.

This letter is ample for the time. I hope to write you again in the line of things seen and heard during my interesting times in this state. JASPER BLINES.
La Platte, Neb.

MR. HAMLIN IS FURTHER ADVISED.

Editor RURAL WORLD: Most of your correspondents are offering advice to Mr. Hamlin, in answer to his question about selling his farm. As advice is cheap, please allow me to offer a suggestion: Sell out your high-priced land and come down into Arkansas, where land is cheap; buy land enough for yourself and boys, but don't invest all your capital in land. Keep back enough to live on till you get a start. Invest part of it in cattle and goats, and in a few years you will have a good income, and can feel independent. Our climate just can't be beat. We had our first frost this morning, the 24 day of November.

I recently combined business with pleasure, and took a trip to St. Louis, where I took in the great fair and exposition. To a person who hasn't been to either for a few years, it proved to be considerable of a disappointment. Time was, and not so very far back, when both of these institutions were the pride of the city and the whole surrounding country. Now all is changed. The improvements have not kept pace with the times. At the fair grounds, especially, many of the buildings seem old, dilapidated and rotting down with age. Both places were full of fakers and side shows of all kinds, ready to fleece the unwary at every turn. The worst feature of the exposition were the mutoscope pictures and the barroom, both of which were a disgrace to the city.

Monroe Co., Ark. F. TROTTER.

LIGHT IN THE BARN.

Editor RURAL WORLD: I have been a subscriber to the RURAL WORLD for 25 or 30 years and during that time I have never troubled you with any questions, and I think by this time I am entitled to ask one.

Notwithstanding the fine weather we have been having and are still having, we are admonished that the cold storms of winter will soon be here, when the stock that is now grazing leisurely upon the pasture will have to stand and shiver behind some patch of brush, or a barbed wire fence, or be housed in some place that has been prepared by their owners. I have been trying to profit by the advice given in the RURAL WORLD from time to time, and to-day I own no living creature that I cannot shelter from storms or protect from cold winds—from the noble horse that does the work on the farm and takes us to town and to church, to that feathered tribe that furnishes us that

dainty dish for breakfast, therefore what I have in housed in barns and buildings prepared for them, and these are subject to destruction by fire. I am getting old and have to depend on other hands than my own to feed my stock. I would like to have you or some of your able correspondents advise me as to the best light for barn use. ISAAC CAPPS.

Adair Co., Mo.

The RURAL WORLD is always glad to aid its patrons by answering or having answered any questions relative to the farm or farming that may be submitted. Our correspondent shouldn't hesitate and keep quiet for a quarter of a century.

A good lantern for the farm barn is a common railroad lantern, in which hard oil may be used. If the windows are arranged so the lantern will not have to be taken into the interior of the barn, but hung outside so that the light may shine in, the danger from serious loss by fire will be greatly lessened.

Our readers will find an excellent lantern advertised on another page of this issue. It is made in New York by the E. E. Dietz Company.

LET THE BOYS EARN THEIR HOMES.

Editor RURAL WORLD: Mr. Hamlin's letter in a recent issue of the RURAL WORLD brought to mind the lives of two neighbors who settled in this section 25 years ago. Mr. A. had money enough given by his parents to buy 120 acres of prairie land and to build a very good house. He was single and had nothing to keep him from making money. The other, Mr. B., had no money and a large family to support. He bought 40 acres on time, but by honesty and good management, he to-day owns 120 acres of fine land and is all out of debt. Mr. A. has his farm mortgaged for all it is worth, with no hope of paying out. This did not happen by luck. Mr. B.'s farming methods were systematic, while Mr. A.'s were slipshod.

I can count six men who have mortgaged their homes to start their sons in business of some kind, and whose farms are about to be closed out to pay the mortgage. These men are my neighbors. I suppose it is the same in every neighborhood.

I will add this fact, those boys who staid on the farm and better off than those who left the farm. It is surely good to help your sons with money, if you have it, but do not place a debt on your home or yourself. Your sons will surely think more of you, when they are older and you are gone to your long home, if you permit them to earn their own homes. Bates Co., Mo. C. C.

ARKANSAS NOTES.

Editor RURAL WORLD: Our people are about through with the fall work. A great deal of wheat and rye has been sown in this section, and it looks well. Still a good many are plowing and sowing wheat. The cotton was rather a light crop, but prices are good and more than make up for the light crop. Corn is very good. Small grains were all very fair crop. Potatoes, both Irish and sweet, are fair crops. Stock peas are not an extra big crop, owing to the dry weather in July. Our stock is going into winter looking fine. The woods pasture is still good—no killing frost yet. Meadow and clover fields are immense, and will make good winter pastures. A good crop of mast good winter pastures. A good crop of mast ready for butchering by Christmas without any corn. Fat hogs are worth \$3.75 to \$4 per 100 pounds; feeders, \$2.25 to \$3.50; cattle, from 2 1/2 to 4 c per pound; sheep are in good demand at \$2 per head; wheat is worth 58c to 60c; rye 75c; corn 35c to 40c; oats 30c; apples 80c to 75c per bushel; potatoes, Irish, 50c; sweet, 40c; cotton 25c per pound; chickens, hens, \$2.25 to \$2.75 per dozen; chicks, \$1 to \$1.50 per dozen; turkeys 30c to 75c each; geese 25c to 30c each; good cows \$25 each; horses \$40 to \$60 each; hand labor 75c per day; by the month, \$12.50 to \$15 per month; carpenter work, \$1.50 to \$1.75 per day. Fulton Co., Ark. D. S. HELVERN.

SHRINKAGE OF CORN IN CRIB.

Here is an item that farmers will be interested in. A recent test at the Iowa experiment station of the shrinkage of corn in the crib developed the following facts: On October 13, 1898, 7,000 pounds of ear corn were husked and stored in a crib constructed to measure the shrinkage conditions normal. In the first three months of the loss was 30 pounds, or 3 per cent. For the next three months the loss was 300 pounds, or 5 per cent; for the third three months 220 pounds, or 3 per cent, and for the last three months 100 pounds, or 2 1/2 per cent. The aggregate loss was 1,400 pounds, or more than 20 per cent.

COLORADO NOTES.—The potato crop was a total failure; wheat, oats and barley about half a crop. The range is in fine condition for winter feed; stock all in good shape for wintering. Calves are selling for \$13 to \$15 per head; yearlings from \$19 to \$22; 2-year-olds, \$25 to \$29 per head. Surplus stock has nearly all been sold to Kansas buyers. About 75,000 in this county (Huerfano) will go into the winter in good condition. The dairy business here is in its infancy, yet those who are engaged in it are doing well. We are under obligations to the RURAL WORLD for the one insertion of the H. McK. Wilson & Co. advertisement, as it told us where we can buy our dairy supplies. The RURAL WORLD is a welcome visitor at our house. CHAS. H. COAN.

The Dairy.

OFFICE MISSOURI DAIRY ASSOCIATION, 1213 Chemical Building, St. Louis, Mo. Norman J. Colman, President; Levi Chubbuck, Secretary.

DAIRY MEETINGS.

Iowa State Dairy Association at Storm Lake, Tuesday, Wednesday and Thursday, Nov. 13, 14, 15, 1900.
Minnesota Butter and Cheesemakers' Association at Fairmont, Minn., Nov. 23, 24, 1900. No special premiums, only cash contributions to the pro rata fund.
Missouri Dairy Association, Kansas City, Mo., Dec. 20-22, 1900.

THE MISSOURI DAIRY MEETING.

To Be Held in Kansas City, Dec. 20-22.
Mr. Levi Chubbuck of St. Louis, editor of the RURAL WORLD, and secretary of the Missouri State Dairy Association, spent parts of two days in Kansas City this week in the interest of the annual convention to be held here December 20-22. He reports and looks for a big and successful gathering. The attendance is likely to run close to 1,000. As the greater part of the creameries, dairies and cheese factories of the state are located in the northern half, Kansas City will be a convenient point for the convention.

Mr. Chubbuck and J. E. Brady and W. W. Marple of Kansas City talked over plans for the convention and partly arranged the program, although complete details are yet lacking. A strong effort will be made to have a meeting of more than the ordinary interest to patrons of creameries and farmers in general. Such a meeting would, of course, be of special interest to creamery managers, because of the direct benefits they would derive from the practical knowledge gained by the patrons. The most conspicuous feature of the last Kansas convention was a patron's class, and this will be made a feature at the coming Missouri convention. Special inducements will be offered to patrons to attend and take part in this class work. It will consist of the putting of numerous questions by creamery experts to the patrons and the answering of them by the members of the class. Prizes will be offered for the best and most practical answers and there will be a general discussion of the interesting points developed in the class work. There is much to be gained from this method of teaching than by any other. In addition there will be plenty of interesting speakers on the program, covering every phase of the industry from the management of the cows on the farm to the making and marketing of butter. It is expected to have several prominent men from other states in attendance to make addresses. Among this list will be Secretary Coburn and Prof. Otis of Kansas; Prof. Haacker of Minnesota and also Prof. Haacker, Jr., of Nebraska. Beside these there will be numerous Missouri speakers on the program. W. W. Marple of Kansas City will be included in this list.

The butter dealers from the leading markets of the country supply men and representatives of the trade in general will be in attendance in larger numbers than heretofore. The Nebraska convention will be held at Lincoln December 15-19-20 and a large number of the attendees at that meeting will come here for the Missouri convention. There will also be a big attendance of Kansas people interested in the dairy industry. The local dealers are working hard to make the convention a decided success. A meeting of the local produce men will be held November 10 at the Fruit and Produce Exchange Hall to arrange for the local work in connection with the convention.

There will be liberal exhibits of butter and cheese, together with machinery, exhibitors will be included in the program. The convention will be such that no one in any way interested in the dairy industry can afford to miss. Reduced rates will be given by railroads for the occasion.—Kansas City Packer.

DOES DAIRY FARMING PAY?

A Cass County, Mo., Statement.
Editor RURAL WORLD: As you request a discussion of the profits of dairying as compared with other lines of farming, I will give you a few items.

We run what might be called a perpetual dairy, milking 15 to 20 cows the year round, with a herd of 25 to 28, generally making cheese in summer and sending milk to creamery or making butter in winter. I will only give figures for the present season. We began making cheese May 2, and stopped Oct. 27. From an average of about 18 cows we had 36,300 pounds of milk made into cheese, making about 3,300 pounds, which sold for 10¢ net, making \$330.50. Calves were sold at \$5 each at 10 days old, adding \$90, or \$420.50, \$24.25 per cow for five months. Milk sent to creamery for five months more will add \$12 to \$15 per cow. If you count 100 loads of manure, worth \$1 a load in any farm, the gain in hogs that use up the skim milk and which amounts to considerable, the whole foot up quite a neat little sum.

INDIRECT RETURNS.—Here let me digress a little. We keep from 40 to 60 hogs, and in 25 years have not lost more than five or six from disease anything like cholera, while hogs have died, whole droves of them, all around us, a number of times. I attribute our immunity in part to feeding milk and whey. By keeping our farms stocked with what cows they will carry, we can keep our land mostly in grass, and thus prevent, to a great degree, the woeful waste of soil as well as

"Uneasy Lies the Head That Wears a Crown."

But such are not the only uneasy heads. Overworked housewives, harassed business men, anxious teachers, ambitious students—all ages and both sexes are uneasy with aches, pains, irritable blood, disordered stomachs, damaged kidneys and liver. For such, Hood's Sarsaparilla is the effective and faultless cure. It cleanses the blood, purifies the system, and restores the body to its normal, healthy condition. Try it.

Hood's Sarsaparilla
Never Disappoints

Hood's Pills cure liver ill; the non-irritating and only cathartic to take with Hood's Sarsaparilla.

fertility that is continually going on by grain raising, and a very few loads will suffice to haul all we raise to market. Of course, it is confining work, that is, one must be on hand twice a day every day, but what kind of business is there that does not require strict attention to be successfully carried on? Keep more cows, I say, but don't keep a cow just to raise a calf. If there is no creamery near you, join with a few neighbors and start a neighborhood cheese factory. "A FARMER CHEESEMAKER."

FROM SOUTHEAST KANSAS.

Editor RURAL WORLD: Your suggestion to readers of the R. W. that they report what their herds are doing, cost of keep, etc., etc., is a good one. A great deal can be learned from the experience of others.

A FARM DAIRY.—Most of the readers of the RURAL WORLD know that we are engaged in what is called home or farm dairying. We are not dairying for fun or for the benefit of our health, but for the cold cash we can make out of it. We are working on this line because we believe that we can get more dollars for our work than by sending milk to the creamery. We have a skimming station within three miles of us, and a factory within six, so we are in a position to put our milk on the market at a profit. It would be best for us to do so; and perhaps someone can give us some pointers along this line that will help us do better than we are now doing.

We do not claim to have the best herd of cows in the state. It has only been a little over five years since we began building our present herd. More than half the cows in the herd are cows that we bought and the herd has never been culled, and every heifer that we have raised is in the herd now. Otherwise we could make a better showing, as I know to a certainty that we have a few very ordinary cows in our herd; and I am preparing now to do some culling before we start on our next year's work.

THE RECORD.—Our year closes Dec. 31, so we still have two months to run before our record year is up, and I only write this report now with the hope that it may call out other reports, as by the time our working year is up I may forget or neglect to do so. And while I cannot tell now within a penny what our cows will make this year, I can come near enough, so there will not be a dollar either way unless something unusual occurs.

Our cows will have a credit per head of \$50 for butter, 4,000 pounds of skim milk, worth \$6, and one calf worth \$5; total, \$61. Now, this is not as much as I expected our cows to make when we started the year. Circumstances over which we had no control cut into our receipts to a considerable extent, and I expect next year to make a better showing.

AS TO COST OF KEEPING A COW A YEAR, we have never been able to determine the exact amount. This will vary from year to year with the variation in price of feed, the price of land, etc. Here in Southeastern Kansas I estimate the cost at \$23 per year per cow, and I feel sure this is above rather than below the actual cost. Rough feed is always as cheap here as in pasture. One can head-retain pasture here at from 25 to 40 cents a head per month for grown stock, and when one buys pasture in bulk it can be had cheaper than that. This summer I rented 30 acres of splendid pasture for the season for \$30. All these things must be considered in determining the cost of keeping a cow, and this will vary in different localities and in different years in the same locality.

FEEDING CALVES.

The undersigned has had nearly 90 years' experience of feeding calves. I remember when about three years of age hearing my older brother ask father if he was going to "raise" calf that had made its appearance during the past night. He was, I said nothing but concluded to watch carefully and when that calf was "raised" I proposed to see the operation. Soon after dinner father and brother put some boiling hot water in a clean tin pail and started for the barn. I trudged after them, although there was a bitter March wind blowing. When I got to the barn I peeked through a crack and saw brother milking the calf, in which a little of the hot water had been used to soothe the milk fully blood warm when offered to the calf. I stood there and saw that dear father, who never struck an animal or a child the raised eight sons and six daughters) a blow in his life that would kill a fly, feed that baby calf. The calf was taking the delightful swallow in a few minutes, although it had not been away from its mother but six hours. Father would no more think of starving a baby calf to make it take food than a human baby. When he came outside and found me, blue with cold, and I had explained why I was there, he assured me that henceforth, when a calf was to be "raised," I should take a hand. And he turned the calves over to me entirely when I was very young.

He kept a year round dairy of some 40 cows, sending his milk to New York City, and he raised about 15 calves a year to keep up his number of cows; also some steers to feed his numerous family.

I made and fed a great deal of hay tea in those days. I was allowed about two quarts of whole milk for a calf per day and I had to finish the ration with hay tea and gruel. I knew nothing of protein and albuminoids then. Ether extract and crude fibre, etc., were all Greek. I did not even know that a calf had more than one stomach and thought that it was its belly. But as ignorant as I was, with the assistance of Grandma Hyatt, we made most excellent hay tea, it sleek growing calves very young, it doesn't take but little hay for a calf and the tea must not be kept from one feed to the next. I knew nothing of microbes, but I soon learned the importance of sweetness and cleanliness. I have not time to-day, but in the near future I will tell you large family, dear editor, just exactly how I have managed to raise good calves on hay tea, whey, skim milk or butter milk.—A. X. Hyatt in Indiana Farmer.

THOUSANDS OF HAPPY HOMES

If anyone contemplates a change of residence, he should not overlook the attractions and advantages of Utah. There are thousands of acres of splendid land at various points on the line of the Rio Grande Western Railway in that state. The soil is very productive and the market close at hand. The climate is superb, being temperate the year round. The sugar beet industry as well as fruit culture, etc., are prominent features of these agricultural districts. Send 2 cents postage for a copy of "Lands" to Geo. W. Helms, General Passenger Agent, R. O. W. Ry., Salt Lake City, Utah.

COLD STORAGE AND REFRIGERATION.

The evolution of science in adapting the laws of nature to the requirements of mankind, becomes more noticeable every day. A few years ago and what all was the popular illuminant; then petroleum came to our rescue as the stock of whales became depleted and now science has evolved and so perfectly controls electricity that it furnishes the principal artificial light for the entire civilized world.

With the development of more perfect transportation facilities came the ability to distribute the excessive crops of a favored district to a distant section where similar soil products had failed, thus permitting a sort of average participation of all the people in the abundant harvest.

But perhaps the greatest and paramount development of modern times is to be found in the most perfected system of cold storage of perishable products—meats, fruits, eggs, etc.—and their preservation in an absolutely uncontaminated condition for any required time. This further step in scientific development appears to cover the requirements of our rapidly increasing population and their concentration into densely crowded cities, and enables the people of all sections of our country to enjoy the productions of other sections at almost all seasons of the year. Millions of cases of eggs are now in cold storage awaiting the coming holiday trade; hundreds of tons of meat are at this instant in process of transportation, under refrigeration, from cold storage warehouses, while fruits from the west or south and from the east to the west are being rapidly conveyed to far away markets.

One of the benefits of cold storage is apparent in the higher average prices which prevail on perishable products, particularly in the case of eggs, the figures favoring the producer during the late

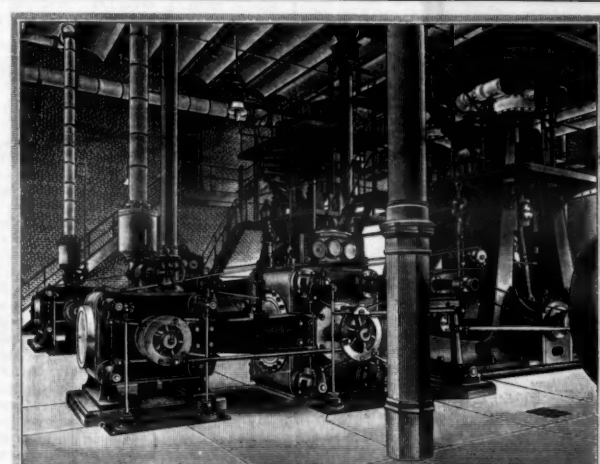


PLANT OF THE ST. LOUIS REFRIGERATING AND COLD STORAGE CO.

spring and summer, whereas formerly they were a drug on the market and could rarely be sold in considerable quantities at anything like a paying price. Cold storage will work a still further revolution in the interest of poultry keepers.

The purpose of this article is to direct the attention of our readers to the most complete as well as one of the largest plants in this country, and probably in the entire world, which has recently been erected and perfectly equipped in this city. We refer to the St. Louis Refrigerating and Cold Storage Company, at Lewis and O'Fallon streets.

That this city is, perhaps, better located geographically than any other in the United States for such a plant is the one in question, will not be denied. It is the metropolis of the entire Mississippi Valley; the center of the greatest agricultural district on the continent, and including within its borders a greater proportion of commodities adapted for preservation in cold storage than can elsewhere be found. St. Louis is especially a shipper's best depot for many commodities, as it is a division point between the eastern and western classifications, besides being headquarters for the American Refrigerator Transit Company, which handles nearly 90 per cent of all the less than carload lots of perishable freight out of and into St. Louis. This company has a station with the St. Louis Refrigerating and Cold Storage Company, where less than carload freight is received for



ENGINE ROOM.

daily shipment. Orders received up to 4 o'clock p. m. can go out the same day and without carrying an extra and superfluous charge for cartage.

This immense establishment is a revelation and well illustrates the advances of science, particularly in this direction, while its benefit to shippers of perishables to this and other markets will amount to many thousands of dollars annually.

To begin with, the foundations for the buildings are massive and would, no doubt, safely support weights a thousand times greater than any to which they will be subjected. The four cold storage warehouses are located on the west side of Lewis street, with a frontage of 202 feet by a depth of 125 feet, and have a capacity exceeding 1,000,000 cubic feet. Besides providing for preserving in the colds almost unlimited amounts of meats, fruits, etc., provision has been made for space for 100,000 cases of eggs and special attention is paid to this branch of the business. Shippers of eggs, poultry, butter, cheese and game should note the unequalled cold storage facilities here offered. In this connection it is proper to state that no ammonia is used

in these warehouses, the cooling agent being exclusively chloride of calcium brine, thus preventing all possibility of contamination from leakage of pipes. Two of these houses are piped directly for zero temperature, and two of the houses for eggs are cooled from chambers on the seventh floor, both temperature and humidity being under perfect control, even to the fraction of a degree.

The apartments in these warehouses are absolutely isolated; the system of piping is independent, the walls, floors and ceilings impervious to the escape or admission of any odor, while the magnitude of the buildings permits storage of different classes in separate apartments, a consideration to be greatly desired.

As one instance of scientific development as exemplified in these warehouses, it will be worth while to note that it is usual to discharge the cold air into a given apartment through a comparatively small pipe, the air being in rapid motion, and, of course, passing to and through the outlet at the same rate of speed; thus, the corners and remote portions of the room were not effectively cooled and only a varying temperature could result. In these warehouses the inlet and outlet pipes are large and the greater volume of slowly moving cold air has time to penetrate the remotest corners, hence an equal temperature throughout every foot of cubical space is easily preserved.

In addition to the cold storage house proper is the great power house containing the manufacturing and storing rooms and boiler and machine rooms; this structure being 20 feet long by 32 feet deep, with four stories and basement. The boiler room and machine rooms are absolutely fireproof, and entirely cut off from the ice plant, hence, should the ice plant be destroyed by any means, the engine and boiler rooms would in no wise be affected.

"INCURABLE" HEART DISEASE SOON CURED.

During the last two or three years very great improvement has been made in the treatment of the different kinds of diseases of the heart. Cases formerly considered incurable now rapidly recover. The well known specialist, Franklin Miles, M. D., LL.B., of Chicago, will send his new Individual Treatment free to any of our afflicted readers who will mention this paper.

This liberal offer is for the purpose of demonstrating the great superiority of his new system of treatment for heart troubles, such as short breath, pain in the side, oppression in the chest, irregular pulse, palpitation, smothering spells, puffing of the ankles or dropsy.

They are the result of twenty-five years of careful study, extensive research, and remarkable experience in treating weak, dilated, hypertrophied, rheumatic, fatty or neuritic hearts, each one of which requires different treatment.

The treatments are carefully selected for each patient, as regards their age, weight, and stage of each kind of heart disease. All afflicted persons should avail themselves of this liberal offer. No death comes more unexpectedly than that from heart disease.

The eminent Rev. W. Bell, D. D., of Dayton, Ohio, General Secretary of the Elgin Mission, writes editorially in "The State Sunday School Union": "We desire to state that from personal acquaintance we know Dr. Miles to be a most skillful specialist, a man who has spared neither labor nor money to keep himself abreast of the great advancement of medical science."

A thousand references to, and testimonials from, Bishops, Clergymen, Bankers, Farmers, and their wives will be sent free on request. These include many who have been cured after from five to fifteen physicians and professors had pronounced them "incurable." Among them are H. A. Groce, 364 Mountain St., Elgin, Ill.; Mrs. Sophia Snowberg, No. 282 21st Ave., St. Minneapolis, Minn.; Mrs. A. C. Hurlburt, Bloomington, Ill.; Mrs. M. B. Moreland, Rogers, Ohio, and the presidents of two medical colleges, etc.

Send at once to Dr. Miles Association, Cor. Adams and State Sts., Chicago, Ill., for free treatment before it is too late.

THE BULL ON THE TREAD POWER.

I am thoroughly impressed with the value of giving bulls exercise. Our old Jersey bull, Thrifty Lad, who stired many remarkably good cows, was used in the tread power nearly every day in winter, and at least twice each week in summer. I tried using him to run the cream separator, but he was not a believing success at that; still for running a bone cutter, a feed cutter, and many other machines that did not require steady power, he was right. We occasionally had some trouble to get him into the tread, but in a general statement, I believe he relished the exercise. I kept this bull until he was 14 years old, when he injured his hip, and had to be killed. He was strong and vigorous to the last service, and while his opportunities were limited, he stamped himself on a very large per cent of his daughters. I have five of them left (pure bred Jersey) with butter records ranging from 15 to 21 pounds in seven days. One made for Mr. E. L. Parker about 300 pounds of butter in a year beside the milk used in the family; one made for Mr. Osborne over 400 pounds in a year, and last year at the State experiment station one made 535 pounds in the 12 months. Among the grade cows that came from him, there are a few that do not make more than 14 pounds per week, when in flesh. I believe much of the ability of this bull to impress himself on his get came from the vigor begetten of the treadmill exercise. The bull that followed him has not been put in the tread, but was turned out in a paddock made of Page fence every day in the year—as long as I owned him. I now have two mature bulls, but do not use either in the tread, depending on the paddock and leading for exercise, as the man who cares for them prefers these methods. If I were doing my own work every day, as I was when I was handling Thrifty Lad, I should certainly exercise the bull in the tread.—F. E. Dawley in Rural New Yorker.

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Send at once to Dr. Miles Association, Cor. Adams and State Sts., Chicago, Ill., for free treatment before it is too late.

WE CAN'T DO IT

without your assistance, but have always made a strong effort to turn the attention of legitimate homeowners in this direction. It is being done by honest statements as to real advantages of this region and at great expense. Will you help us in this work by furnishing list of persons to whom it might be well to send suitable printed matter? Address: Bryan Snyder, G. P. A., Frisco Line, St. Louis, Mo.

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We have just received from the Union Pacific Railroad a beautiful publication containing forty colored views of scenery between the Missouri River and California. This is one of the most artistic publications ever issued by any railroad company. The same will be mailed free on receipt of 4 cents in stamps for postage, on application to J. F. Aglar, General Agent, St. Louis Mo. It is well worth the money; send for it.

Do you feed and water stock? If so, write O. K. Harry Steel Works, St. Louis, Mo., for catalog.

Mothers will find "Mrs. Winslow's Soothing Syrup" the Best Remedy for Children Teething.

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H. Harper Mfg. Co., Box 216, Marshalltown, Iowa.

THE UDDER AS AN INDICATOR.
While every cattle fancier recognizes the relative value of all the various points that go to make up an ideal whole, nearly every one has a particular point upon which he lays great stress in judging a dairy cow. I must confess that I am very partial to one special feature of every dairy cow. That point is not the color of the inside of the ear, nor is it the escutcheon, nor the length of the tail, nor the size of the udder, but it is the udder and its veins. The mammary gland is, in my estimation, the most reliable indication of a dairy cow. I think it may be considered more important than all others combined, in point of estimating actual production.

We may, and frequently do, see cows with an ideal head, neck, body, etc., but if her udder is not well developed, the cow is a failure in direct proportion as this important feature is lacking. But do we ever see poor producers with well developed udders? It seems to me perfectly natural that as milk is secreted in the mammary gland, the greater development of that organ, the greater will be its product. I think that, as breeders of dairy cattle, should pay more attention to the development of udders in our ideals of breeding. In order to do that, however, it would be well to have some expression as to what kind of an udder is ideal in shape, size and composition.

PROFESSOR HOWARD.
This farm consists of 140 acres of fertile land, 100 acres cleared and in a high state of cultivation; balance in good timber, 30 acres sowed to wheat, 50 in meadow and pasture and balance in orchard, garden, lawn and nursery. Have about 30,000 young fruit trees in stock at present, and a good established nursery business. Farm is well watered, all under good new fence, has new modern residence, three barns, tenant house, new, with four rooms, large poultry house, and all other necessary outbuildings. We are situated 137 miles from St. Louis, and two miles from city of Salem, Dent Co., Mo., one-half mile from school house, in model neighborhood and on a good railroad. This place would make a desirable home for either the city man who wants a summer home for his family and leave it in care of a tenant the remainder of the year. Land is free from incumbrance and title good. I would be glad to have parties desiring such a place come in person and see this home; would meet them in Salem and drive them out free of charge. We had bought and improved this farm with a view to spending the remainder of our days on it, and spared neither time nor money to make it a model home. But my health has failed so much within the last year, and having no sons to help in the work, I feel compelled to give it up. Price, \$400.
Salem, Mo.
G. A. VAN FLEET.

FARM AT A BARGAIN IN THE OZARKS.

This farm consists of 140 acres of fertile land, 100 acres cleared and in a high state of cultivation; balance in good timber, 30 acres sowed to wheat, 50 in meadow and pasture and balance in orchard, garden, lawn and nursery. Have about 30,000 young fruit trees in stock at present, and a good established nursery business. Farm is well watered, all under good new fence, has new modern residence, three barns, tenant house, new, with four rooms, large poultry house, and all other necessary outbuildings. We are situated 137 miles from St. Louis, and two miles from city of Salem, Dent Co., Mo., one-half mile from school house, in model neighborhood and on a good railroad. This place would make a desirable home for either the city man who wants a summer home for his family and leave it in care of a tenant the remainder of the year. Land is free from incumbrance and title good. I would be glad to have parties desiring such a place come in person and see this home; would meet them in Salem and drive them out free of charge. We had bought and improved this farm with a view to spending the remainder of our days on it, and spared neither time nor money to make it a model home. But my health has failed so much within the last year, and having no sons to help in the work, I feel compelled to give it up. Price, \$400.
Salem, Mo.
G. A. VAN FLEET.

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Our 1901 Model Machine moves faster, runs easier & will last longer than ever. Advantages: It is a saw with a 25-year-old boy or the strongest man. Send for catalog showing latest model and price. First-class saws. Selling Sawing Machine. Co. 20 N. Jefferson St., Chicago, Ill.

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STEAM PUMPS, AIR LINES, GASOLINE ENGINES, ETC. THE AMERICAN WELL WORKS, AURORA, ILL.—CHICAGO, DALLAS, TEX.

COOK YOUR FEED AND SAVE

With Dumping Cattle. Example: It took 100 lbs. of feed to make 100 lbs. of meat. The simplest and best arrangement for cooking feed for stock. Make Dairy and Laundry Stoves, Water and Steam Jacketed Kettles, Boilers, etc., etc. For circular, write for circular.
D. R. SPERRY & CO., Batavia, Ill.

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—and hundreds of other jobs with the strength of 15 men. Most Convenient and useful power ever invented. Costs only TWO cents per hour to run. Especially adapted to farm work.
IT IS A NEW ENGINE MADE BY Fairbanks
Chicago
Cleveland
Cincinnati
Detroit
Louisville

Horticulture.

THE BANANA APPLE.

Green's Nursery Company, Rochester, N. Y., sent us recently a sample of their new apple, the Banana, and asked our opinion of it.

The apple was medium in size, rather flat in form, very little cavity at the stem, but rather deep at the base, in color it was very beautiful—yellow with handsome blush. The quality was most excellent—fine grain, juicy, tender and delicious flavor. So far as one can judge from a single specimen the Banana apple would seem to be an acquisition to be prized. The tree was said to be vigorous, upright grower, and hardy as far as tested.

HORTICULTURAL TALKS.

A LONG SUMMER.—According to my recollection, I have rarely experienced such weather at this time of the year. October 27, and tomato plants are yet green; forest trees are but little defoliated. We are getting ripe figs from the trees every day, and the roses are as fine as I ever saw. A bouquet of Pearl of the Garden, Jacqueminot, Hermosa and Paul Neyron is superb. A Pearl of the Garden is perfect in form, as dark a yellow as any yet, and so fragrant. One now in a vase is four inches in diameter, and a handsome thing to my eyes is impossible. The mercury stood at 80 degrees at midday, and it was calm and delightful.

The persimmons are ripening without frost, and are a feast for the fowls and four-footed animals.

My little Paragon chestnut tree yielded nearly a half bushel. I see the big burrs lying on their backs wide open, and three large nuts in each one, just ready to pick. This is a sight that only a few can see in our state. The time will come when these will be a common thing. Our wild flowers, as well as those in the garden, are still in prime.

RAISING ONE'S APPLE STOCK.—For the benefit of J. M. P., the railroad farmer, and others who want to grow their own apple trees, I will give the following: Take the pomace from the cider press, before it has had time to sour. Loosen it up and spread an inch thick in drills six inches wide and two inches deep, and cover one inch over the pomace, patting the ground with the hoe. Or take the seed out of the pomace with a sieve or strainer, and sow the seed in the trench, so that the seeds will be about two inches apart; covering to about the depth of one inch. In one season the trees will grow large enough to graft, and will be superior to those grown from imported seeds. A man can easily grow his own trees and graft them, and thus know what he has.

RABBIES AND YOUNG TREES.—Don't wait until snow falls to protect the trees under the idea that rabbits will not bark the trees until they are pressed for green food. They are just now barking some of mine, and yet all kinds of grass are still plenty. They are working on my peach trees already. November 1 I wrapped some of my most valuable ones with the old rag, and as destructive in proportion to the size as the rabbit is here, deliver us from them every being let loose in this section. Some one has asked me if I think they may become a pest here. I cannot tell, as I never saw more than three, and they were confined. But one thing I have from good authority, and that is, that Belgian hares and young trees should not occupy the same ground. There is not now, nor has there been for a long time, such diversified accounts and opinions given on any topic as on the subject of Belgian hares, or rabbits, as they are sometimes called. While some assure fortunes in their raising, others condemn them severely. I don't want any on my grounds. The common cottontail is nuisance enough for me.

APPLES DECAYING.—This is a very general complaint, and is easily accounted for. The hot, dry summer in the latter part of the season, and the continuous warm and rainy weather for the past two months, along with the effects of insects, where not sprayed, are all means to bring about the result. The best one can do is to frequently spray over the apples, throwing out the wholly decayed ones, and those only specked should be used. Cut the decayed part out, and convert the good into good for drinking while sweet, and when it gets past that stage, let it go to the vinegar barrel. When cider gets to what is called "hard," I deem it an unwholesome drink, as it has a tendency to create a taste for something stronger.

Time I have known a set of boys that became regular drunkards, who began by drinking hard cider.

Hutton, Mo. SAMUEL MILLER.

QUESTIONS FOR JUDGE MILLER.

Editor RURAL WORLD: I wish to thank you very much for publishing what you did of my former letter, not that I wish to be seen in print, but because it has brought other articles of more value and interest.

I read with much pleasure and profit the article by Mr. G. W. Ramsey, and join with him in asking suggestions from "our friend" Judge Miller. I will venture to ask some questions additional to those asked by Mr. Ramsey. No doubt they will be simple if not silly to those of experience.

What time of year should the peach trees be budded?

Should the buds be placed low enough so the place where the bud was set will be below the surface of the ground when the tree is set in its permanent position in the orchard?

When is the best time for grafting apple scions?

I set five plum tree sprouts last spring, but the original tree had a very poor plum on it so I wish to graft the young trees.

Is it necessary to use only the last year's growth in top grafting, or can older and larger branches be used?

Will Mr. Ramsey or any other friend tell me where apple seedlings can be got, and at what cost?

I have the RURAL WORLD of February 15, 1900, in which Judge Miller states that "this is the time of year to graft." But as his article may have been written a month or more before February 15, one could be led into error in this way.

I saw some very fine apples in Ottumwa, Ia., yesterday, and asked the name of the variety, and was told it was the "New York Baldwin." What does the RURAL WORLD know of this variety? It was a fine looking apple, and I was told it was a splendid keeper. In size, form and color it resembled the Jonathan.

The 5,000 strawberry plants I wrote about in my former letter, amounted to only \$200, but they are all growing nicely. I wanted to set more, but time was scarce so I did not.

I also set quite a few blackberry sprouts that seem to be growing nicely.

THE HENRY SHAW BANQUET.

To Gardeners, Florists and Invited Guests.

On the evening of Nov. 2, in accordance with the will of the late Henry Shaw, the eleventh annual banquet to gardeners and florists of St. Louis and vicinity was given at the Mercantile Club. A large company was present and included employees of the Missouri Botanical Garden—the gift of Mr. Shaw to St. Louis—market gardeners and florists of St. Louis and vicinity, and invited guests.

The banquet was spread in the beautiful banquet hall of the Mercantile Club. At the table of honor, which was beautifully decorated with roses, carnations and chrysanthemums, were seated Dr. Wm. Trelease, Director of the Garden, who presided. On his right were Patrick O'Mara of New York, President-elect of the Society of American Florists; former Governor and Secretary of the Interior D. R. Francis; Mr. J. C. Birge of St. Louis, and former Lieut.-Gov. and Secretary of Agriculture Norman J. Colman. On the left were Mr. Wm. Scott, former President Society American Florists and Superintendent of Floriculture Pan-American Exposition; Mr. J. G. Smith, of the United States Department of Agriculture; Prof. J. C. Whitten, of the Missouri Agricultural College, and Mr. J. J. Bencke, President St. Louis Florists' Club. Among others present were Mr. Howard Elliott, General Manager Burlington R. R. St. Louis; Major H. G. McPike, Alton, Ill.; G. A. Atwood, editor "Practical Fruit Grower," Springfield, Mo.; T. B. Chandler, Farmington, Mo., and A. T. Nelson, Lebanon, Mo.

While the elegant banquet was being enjoyed music contributed to the pleasure. Following the feasting on blue points, turtle soup and other good things to eat, and the conversational delights, came the speeches in response to toasts. Dr. Trelease acted as toastmaster.

THE FLORISTS.

Prof. Trelease in arising to propose the toasts of the evening, said: "Mr. Shaw had a wise purpose in arranging for this annual gathering of men representing the various lines of industry connected with the growth of plants, and his trustees have taken as it seems to me, a very wise view of the language he used when saying that the banquet was to be given to the gardeners of the institution, and invited florists and market gardeners of St. Louis and vicinity, for his trustees have held that the vicinity of St. Louis was intended by him to not be limited by municipal lines, and is not limited by state lines, but is limited simply by the willingness of gentlemen to come and assist us in making a successful occasion of this banquet. After the gardeners of the Missouri Botanical Garden, Mr. Shaw specifically mentions florists. Now the florists are a very large family, and as some of you know there is no better nor more earnest organization than their national society, the Society of American Florists. In 1888 we were privileged to entertain the members of this association in St. Louis, and we have several times been favored on an occasion of this kind with official representatives of that body. With us to-night we have an ex-president of that Society, and the president-elect, a man who will bring into the affairs of that Society business ability and energy which have brought him very close to the head of one of our great floral establishments. And in proposing the toast to the Florists, I take pleasure in introducing Mr. Patrick O'Mara of New York, who will respond to it."

Mr. O'Mara, in responding to this toast, stated that this was his third or fourth, and he believed it was his last, visit to St. Louis. He is very proud, indeed, to be a guest on that occasion. Continuing, Mr. O'Mara said: "I came here originally as one of the great army of drummers, and went around among the district gardeners and florists. I have always had some of the most pleasant recollections of the city.

"The Society of American Florists was born of a necessity. It was not a made-to-order thing, so to speak. I am sorry that someone who is an older member than I am, is not here to tell of the early history of the organization. As many of you gentlemen here know, the florists were allied with the nurserymen, but the nurserymen, who were the common link, got the amount of recognition which they thought they were entitled to, they formed the Society of American Florists. Since the first convention in Cincinnati, in 1884, the organization has unquestionably done a vast amount of good, looking to the advancement of the interests of the florists of the United States.

"It has been well said that 'institutions make men,' but in the beginning men make institutions. We in the trade who keep in touch with developments, comparing the present condition of the florists of the United States with what it was the year that the Society of American Florists was established, can readily realize the vast strides that have been made in the art of culture in horticulture and in the amount of capital invested, and, above all, in the degree of intelligence that is displayed by the men in the business, which tends to make the business a commercial pursuit rather than what it was in the early days, a sort of sporadic enterprise. The florists of today take rank with any and are entitled to the same amount of recognition as is accorded those in other pursuits. It is my belief that at least 90 per cent of the improvement in the condition of the florists can be credited to the Society of American Florists. One of the main factors, I believe, in the bringing about of this result, was the establishment of a trade press, or what you may term a forum, wherein each man met his fellow, and discussed subjects relating to the trade and his experience in the culture of plants, etc. This surely results in an improvement in methods of culture, and an increase in the confidence as to results in such culture.

One thing, perhaps, which the founders of the Society of American Florists probably did not contemplate in the organization of the Society, was the bringing together of men who work in the craft under different conditions of climate, etc., and thus giving them opportunity to interchange their views.

THE MAN WITH A HOME.

Prof. Trelease in proposing the next toast, said: "We always have on occasions like this, men with us who are given to the cultivation of plants for pleasure, or as a means of pleasure. One of our guests this evening is a man who has his own home, where he is known to give a good deal of his time and thought to the cultivation of plants for pleasure. I take pleasure in introducing Mr. Julius C. Birge of this city."

Mr. Birge: "The sentiment, Mr. Toastmaster, of the toast to which you have given me the pleasure of responding, is a touching one—that of the man with a home."

The word home to a man who is not out very often late at night, is a very pleasant suggestion, and I do not believe it possible to express its exact meaning in a dictionary; I think its equivalent is not found in every language. What is a home as contemplated by this sentiment?

"It goes without saying that there's a good woman in it and probably some children. A house and a lot hardly constitute a home. Not even though there be the addition which we often see, of a lawn where the plantain and the dock luxuriate, and a few specimens of night shade or stramonium shaded by one or two decrepit and odoriferous Allanthus trees. You have seen the lawn, where near the regulation unpainted high board fence were two or three barrels overflowing with ash, half concealing broken glass and pokers which do not suggest peace within those walls. The ubiquitous clothes line dangling with laundered underwear affords a weekly change of scenery.

A marble palace with frescoed walls does not fully make up the requirements of a home. Neither does a cottage, but a little vase of healthy blooming roses in the window tells that a loving hand has been there.

When Ben Butler walked along up that east drive from his home to the Capitol and saw men preparing to cut a fine tree, he acted like a man with a home. Said he: "Are you going to cut that tree?" One man replied: "Yes, Senator; we have been ordered to remove it." "You wait until night," replied Butler, "and I will be responsible to you." Butler, as you know, strode to the Senate chamber, introduced a resolution, recited with dramatic effect Morris' poem, "Woodman spare that tree." The tree still stands. Butler was unpopular in New Orleans, but if his shades were in St. Louis there would be less tree butchery and more ideal homes.

Where did we receive the first impressions which gave the word home a meaning?

Mine was in a home in the country. A farm well filled, a little nursery in one field—the lawn kept with neatness, the nearby forest with its ever changing hues of maple, hickory and birch skirted by a copse where the wild flowers loved to bloom. In those trees were the homes of myriads of songbirds. Had to say, since then the woodman's axe has leveled many of these to increase the abundance of insect life. The streams, the lakes, the pond and the mill race all combined, were a setting to the chief jewel—the home, though the home itself was a plain affair.

Many of you, like myself, have here and in Europe seen beautiful and costly paintings from nature, but the brush cannot paint the aroma of the woods and flowers, nor the music of the stream.

To impart to a home qualities which I believe this toast is designed to convey, there must be a touch of nature's genial glow to bring it in line with the best things in the world.

It is our avocation, and with many of you a vocation, to bring to the homes of the people something more beautiful, more elevating and possibly more instructive than any work of the brush or chisel or plans of the architect. It is the home which preaches to us if we may hear, and to surround us with the freshness of nature subdued by art.

We appreciate the skill of the landscape gardener, who recognizes that art should be subservient to nature. "I was impressed with this skill last winter in visiting the botanical gardens of St. Lucia, Martinique and Demerara, South America, countries where the native tropical growth is as wild and luxuriant as anywhere on the globe. The skill of the gardener and florist has produced beautiful effects, as would appear natural in the tropics without permitting nature to run wild, yet convenient for study.

I believe that the man with a home, such as you would want, though not the prince of royal blood, nor with a thousand a year, would nevertheless be a king over at least one little spot where nature would smile in blooming flowers and shrubs; where from beneath his own vine and fig tree he could listen to music of the song birds—music as free as air.

A man in St. Louis with such a home, if he loves his fellowmen, would have a dominant feeling of nobility which is the noblest of all. Henry Shaw, has made it possible for millions of men, women and children in the centuries to come, millions who may have no homes, but who find peace in nature's smiles, to breathe the sweet perfume of flowers and groves and study the most beautiful of all inanimate creations, the trees of the forests. "No tears dim the sweet look that nature wears."

THE MAN FROM THE GARDEN.

Prof. Trelease: "An old man of age, but never on an occasion like this, Mr. Shaw provided for this annual gathering of florists, gardeners, etc., and I believe that his purposes were further reached than most of us appreciate to-day. I think that one of the purposes he intended was that the garden to which he devoted so much of his life, should be a means of education for posterity, and the elevation of horticulture."

"We have with us this evening a man who was intimately associated with me in the management of the Missouri Botanical Garden, but who has since that time assumed charge of one of the departments of the Agricultural Department at Washington, and I know in proposing the 'Man from the Garden' you will take much pleasure in listening to his remarks. I will introduce to you Mr. Jared G. Smith of Washington, D. C."

Mr. Smith spoke, in part, as follows: "The work that Henry Shaw did; the work that he inaugurated, has taken its course along many lines. The garden itself is an educational institution in that it has intended to educate the minds of the people who visit it. The convocation which we have enjoyed to-night, though partaking of a gastronomic character, is, as Prof. Trelease has said, one of the privileges we owe to Mr. Henry Shaw, and one of the means of sending out men into the world prepared to do work which will count for the betterment of the people of the United States. It is some eleven or twelve years since the garden was established as an educational institution, but even before that time it was an educational institution, in that it contained exhibitions of some of the best ideas in horticulture. It is only within the last dozen years that the Garden has commenced to send out workers, and some of these have already made for themselves a name, and all of them, or almost all of them, have done good work; one of them stands at the head of plant hybridization in the Department of Agriculture, Mr. Webster. His work in his various experiments and the results therefrom can be directly attributed to Mr. Henry Shaw." After mentioning some of the

more important results attained by Mr. Webster, Mr. Smith spoke of Mr. Shaw having given to many the opportunity of doing good work for the improvement of the people. This is attested by the number of men who have studied at the Gardens, who occupy good positions, and whose labors are known by their results.

THE ST. LOUIS FLORISTS' CLUB.

Prof. Trelease next mentioned the fact that the banquet was a little in advance of the date observed heretofore. It has usually synchronized with the event to which all lovers of flowers look forward—the annual Chrysanthemum Show, which for a number of years past has been given under the auspices of the florists of St. Louis. A gentleman who has been connected with that exhibition was present, and, after being presented by Prof. Trelease, Mr. J. J. Bencke read a paper bearing on the Chrysanthemum Show of this and of former years, in which mention was made of the provision made by Mr. Shaw in his three wills by which \$500 was annually placed at the disposal of the Florists Club to aid in making a flower show.

THE PAN-AMERICAN EXPOSITION.

At the conclusion of Mr. Bencke's paper, Prof. Trelease, in graceful words, called upon the "Great Scott," superintendent of Floriculture at the Pan-American Exposition, who responded in his usual pleasant manner. Mr. Scott said that he considered himself exceedingly fortunate to be present at the banquet. After spending three hours at the Missouri Botanical Garden, he said that he considered it a noble philanthropy of Mr. Shaw to present this elegant garden to the people of St. Louis and vicinity, and that it is the most splendid garden he knows of anywhere, and thinks it is not surpassed or equalled by any other in the United States.

This garden is not only to be appreciated by the young men of this vicinity, but by the whole people of the United States.

Mr. Scott spoke at some length on the conceiving of the plan of the Pan-American Exposition, selection of site, etc., and said that the grounds on the present site are very spacious, and it was possible to set the buildings and lay out the grounds to bring out the full beauty of the exposition; the idea of the management being that the more beautiful they could make the buildings and the finer the landscape, the more interest and better results could be added. The management has proceeded along most liberal lines, and there will be almost every conceivable variety of plants possible. Various varieties of plants and palms in boxes and pots will be distributed about the buildings in nooks and alcoves, thus assisting in bringing forth the harmonious and magnificent personal supervision of one of the most able artists in this line in New York City; not a single corner being placed upon any structure without his personal approval.

MISSOURI AT THE PAN-AMERICAN EXPOSITION.

Prof. Trelease in his next introductory speech said that after Mr. Scott's remarks it would be impossible to refrain from mentioning a gentleman who at the last moment found it impossible to come and had sent his representative, his son, Mr. Nelson of Lebanon, Mo., who would read a paper prepared by his father.

Mr. Nelson presented a pleasing paper, which was received, together with his exhibit of the Queen of the Oaks (a large dish of big red apples), with most generous applause. We are compelled to defer the publication of this paper for a later issue, when it will appear in its entirety.

THE ST. LOUIS WORLD'S FAIR.

Prof. Trelease, prefacing his introduction of the next topic, said that he had no doubt if this were a legislative body the paper of Mr. Nelson would have the desired effect, that of the necessary appropriation for the exhibit of Missouri's products at the Pan-American Exposition, but he was quite sure that the necessary appropriation would be made at the proper time, and the proper recognition given to those deserving. Another of the guests of the evening was a gentleman who is most prominently connected with the World's Fair in St. Louis, and he believed that the success attained in Buffalo will reflect upon the exposition at St. Louis. He then introduced ex-Gov. D. B. Francis, who took the floor and after expressing his pleasure at being present, told that it had been a pleasure to him to have escorted some very distinguished guests to the Missouri Botanical Garden, and it has been their verdict that the garden is magnificent and an institution whose influence is further reaching than perhaps most of us appreciate. "I believe it was a noble idea of Henry Shaw to provide for these annual dinners, at which those engaged in horticulture may commune together and exchange their views, and, although I am not a horticulturist, I have nevertheless learned something from the conversations and talks this evening."

"In connection with the World's Fair in St. Louis, I am confident it is as much the desire of our people that the exposition at Buffalo be a success as they are that the World's Fair here shall be, for what the Pan-American Exposition is, will influence the St. Louis Exposition. We trust that Missouri may be creditably represented by a proper exhibit at Buffalo, and I have no doubt it will be.

"It is proper to say that the exhibit in 1900 will be not only finer and more magnificent than any the world has ever seen, and we think from the interest manifested thus far by this community and others that it will surpass all others and be the finest the world has seen up to that time. The same attention will undoubtedly be paid at the Pan-American Exposition and will be paid at the slightest detail and to the end of obtaining the best and most harmonious results in the coloring of the buildings and landscape gardening.

"Expositions of this character elevate the civic pride of the city in which they are held, and their influence is widely felt because of the international feeling permeated among the people.

"Of course, Buffalo is better situated in regard to power or supply of power than St. Louis. By this I mean they can perhaps obtain wonderful results and undoubtedly will do so by the use of electricity; but who can say or will dare to prophesy what vast strides in improvement will be made in this modern wonder—perhaps we may even have the use of Niagara's mighty power at St. Louis. Electricity, as you all probably know, will form one of the principal attractions at the Pan-American Exposition, and so will it at St. Louis.

"At our exhibition in 1908 in celebration of the acquisition of this great territory which we inhabit, we shall have

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as our guests distinguished persons of the world, and it will be as much pleasure to us to have as our guests the members of the Society of American Florists as it will be to have these distinguished people, and I sincerely hope that they may be favored with your company at that time."

Prof. Trelease in declaring the banquet at an end, expressed his desire to thank particularly those to whom the guests owed the greatest part of their pleasure, that of listening to them. F. W. MAAR.

NEW OKRA—"WHITE VELVET."

Editor RURAL WORLD: Lovers of this most healthful vegetable will be pleased to learn of a new, spineless variety, that is like velvet to the touch, and wonderfully improved in quality and appearance.

Some dislike the okra because of its sliminess when cooked, but with a little persistence, those who dislike it will learn to grow very fond of it. This vegetable is very popular in the South and should be more generally planted.

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THE CENSUS OF 1900.

A booklet giving the population of all cities of the United States of 25,000 and over according to the census of 1900, has just been issued by the passenger department of the Chicago, Milwaukee & St. Paul Railway, and a copy of it may be obtained by sending your address, with two-cent stamp to pay postage, to the General Passenger Agent of the Chicago, Milwaukee & St. Paul Railway, Chicago, Ill.

The Apiary.

BEE NOTES FROM ANDREW CO., MO.

Editor RURAL WORLD: This year has been a disappointment to all the beekeepers of this country. I have read in the bee journals that it has been a failure in all parts of the United States. I have never seen a year open with more favorable prospects to the beekeeper than did 1900. The honey crop from the hardwood was a failure. White clover has yielded only a small quantity, yet it was of good quality. Our honey crop averaged nine pounds to the colony. Honey will be worth a good price this year. It should bring 17 to 20 cents per pound. Bees are in good condition for winter, where they have been given proper attention.

There are some people who, when their bees do not make much honey, neglect them. This should not be done, for we must remember that the sweet must always come with the bitter.

In looking over my colonies in the spring I always find one that has plenty of stores but is very weak. I have been leaving such alone, thinking that they would soon breed up to their normal strength, but somehow or other they never do. The bees from the stronger colonies torment them so in the spring that their working force is kept from gathering pollen, that they may guard their stores. Next spring I will not let my tender-heartedness overcome me, but will kill them with sulphur and save their combs for the first swarms if they are not needed elsewhere. If the bees are not killed in the spring you will have to kill them in the fall, and also a large colony of moths.

Some people in this county pretend to know a good deal about bees, but they never seem to practice it. For instance, one man keeps his bees in the old box hives. He has about ten or twelve stands every summer, but loses four or five stands every autumn by moths. When a colony dies from moths he never cleans the hive, but seems to think that the moths are very essential to good beekeeping, for he raises millions of them.

I have visited several bee yards this year, and have found a number of apiarists that have good modern hives, but who do not know how to use and set up their hives. Several have placed their honey boards over the sections with the cleats upward. This mistake should not be made, for it causes the bees to cover their sections with propolis. When the honey boards are placed on the sections with the cleats downward it leaves a space of one-quarter of an inch above them. When this much space is left above them they will leave their sections nice and clean.

Some also make a mistake when nailing the lids together by placing the lid on the under side of the lid. When nailed in this way the tin cannot be painted, and soon rust, causing a leaky roof.

I haven't much use for a lid that has to have a honey board under it to fill up space. If there are any ants in the bees and they are sure to come and make the space between the honey board and lid their home. In my estimation I see no use of having this kind of a lid when there are others so much better.

A great many of the farmer beekeepers take their honey off in the spring of the year. They claim that leaving it on over winter improves the taste of the honey. In this I think they are mistaken. I prefer to take my honey off as soon as it is finished, rather than to let the bees wear off the cappings, thereby marring its beautiful appearance and lowering the market price of the honey.

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Have you even one hour per day at your disposal? Please send us your name, best time and place. Full information (gentle and profitable). Dinner at 10:30. ST. LOUIS, MO.

GINSENG

Rock about \$4.00. Telephone

L. E. CLEMENT'S HORSE GOSSIP.

Horse Owners! Use
GOMBAULT'S
Caustic Balm
A Safe Speedy and Positive Cure

The Safest, Most Reliable ever used. Cures all the place of all ailments for mild or severe sores, blisters or blains or all other eruptions of the skin. **CAUSTIC BALSAM** **SUPERSEDES ALL CAUSTICS** **OR FUSING**

Every bottle sold is warranted to give satisfaction or give a full day's money back. Sold by Druggists, by express, charges paid, with full directions and a receipt for the receipt of the medicine.

Wm. Lawrence Williams Co., Cleveland

Several good ones have been in trade at Carthage, Mo., during the last week. A brother and sister two and three years old to this colt. One by St. Vero, sired by St. Just, dam by Blackledge, son of

"It is surprising how quickly horses
the bugle calls. Let the first note of
feed or water call be sounded, and

Will you let me know if you have any information regarding this would be much appreciated by one of the most sincere admirers of your paper.

P. B. LAIRD
Ripley Co., Mo.
Clover and in fact all leguminous

PIASA BREEDING FARM

The Aberdeen-
cattle I offer are broad-
ed, low down, block
beefy and are quick fi-
ed. The Blackbird bull,
Knight heads the he-
J. P. FISHER
Box 18, Melville, Illinois. (near St.

Victoria Baron and Scotland's Crown.



Home Circle.

AT SUNSET.
Frances F. Carson.

Now in the distant, glowing west, you
bright, receding sun
Records on time's unfolding scroll, an-
other day that's done.
Another milestone in my journey passed,
I almost see
The distance less than that divides my de-
sired home from me.
Up gazing at that trackless path, paved
with the sun's last beams,
In happy contemplation lost, my soul in
rapture dreams
Of that bright home, and from its distant
portals now I see
Its beacon lights, the evening stars, a
beckoning guide for me.
If one, short day, brought to its close,
speed on my journey so,
What of the years that one by one so
swiftly come and go?
For ere the mystic face of one new year
have marked well,
It has become the old, at midnight peals
its funeral knell.
They seem so long, the days and years,
while they are yet to be,
But when they come, so laden they with
work and care for me,
A day, a year, a lifetime 'e'en form far
too brief a span
To compass all that lies within each cher-
ished hour and plan.
But let them come, aye, come and go,
their place I would not stay,
I would not be the power mine, time's
speedy flight ally:
For years are but the waves of time that
roll over life's deep sea,
And bear us with the sweeping tide, on to
eternity.
I would not bid life's morn return, now
evening has begun,
And life's short, busy day so near the set-
ting of its sun;
But while the bright, eternal shore before
my vision lies,
All weary with the day I hail with joy
the sunset skies.
—The Inland.

DOMESTIC SCIENCE IN ILLINOIS.

Housekeeping is neither poetry nor pas-
time but is downright earnest work, for
which our girls should be prepared. It is
a reflection on the intelligence displayed
in the home training of our girls that we
will instill love for home and teach that
on good homes rests the safety of the
nation, and yet let our daughters assume
responsibilities of home making without
any knowledge of the duties that will de-
volve on them. Many of them cannot
fashion the garments they wear, more of
them are utterly ignorant of the elements
of food they daily place on their tables,
not knowing that growing children will
but poorly fare on the dishes that should
be served the man of outdoor activity.
Then, too, right conceptions of house-
keeping will show that true knowledge
of the needs of the home will dignify its
labors and that we will no longer regard
it as drudgery.

The state of Illinois has awakened to
the importance of Domestic Science and
is seeking to make it popular. In Feb-
ruary, 1898, a meeting was called at Cham-
paign when the meeting of the Illinois
Farmers' Institute was in session, for the
purpose of organizing a state Domestic
Science Association. At this meeting a
president and secretary were elected.

This association was organized particu-
larly for the farmers' wives. It is to be
to them what the Institute is to the farm-
er, where the needs of the farm home
might have proper consideration.

The work of the Domestic Science As-
sociation of the state was from the first
regarded as a legitimate part of the In-
stitute work, and soon after the first an-
nual meeting the Institute Board passed
a formal resolution recognizing this as an
official association of the Illinois Farm-
ers' Institute, and a committee of di-
rectors was appointed to look after the
interests of the Association. A portion
of the Institute funds is also given to
the furtherance of this work. Counties,
townships and communities are urged to
organize and the latter to hold at least
monthly meetings. Topics are suggested
for study, though the greatest freedom is
granted the local organization, the only
condition required being that intelligent
home-making and keeping shall have care-
ful consideration.

A State Fair Cooking School has been
established at Springfield, two sessions
having been held, each under the direc-
torship of Mrs. S. T. Rorer. The applicants
are recommended by the County Institute
Board. Illinois is the first state to pro-
vide a school of this character for the
daughters of farmers. The interest in-
vested in this work by the young ladies
who have been privileged to take the
course proves how helpful such work is
and will continue to be.

We recommend the domestic science
work to the women of Missouri, and would
heartily endorse an action similar to that
of Illinois by our own farmers in con-
nection with Institute work. We are glad
that the Missouri Agricultural College has
added to its curriculum Domestic
Science.

The city women have clubs galore,
many of which are of a character that
add little to their own elevation or that
of others, but if the women of the farm
homes organize for the uplifting of the
homes of the land the weight of such in-
fluence is without measure.

WHAT THE HOUSEKEEPERS' CLUB OF ST. JACOB IS DOING.

(Read by Mrs. L. A. Spies before the
Madison, Ill., Domestic Science Ass'n.)

Ladies and Gentlemen: The St. Jacob
Housekeepers' Club was organized during
the Domestic Science Association meet-
ing at St. Jacob one year ago, at which
Mrs. J. G. Miller was elected President,
Mrs. Chas. Fairer, vice-president, and
Mrs. R. Pike, secretary. We have been
holding meetings monthly except during
the harvest months. At each meeting the
program committee arranges a program
for the next meeting, and those who are
expected to lead in the discussions on the
particular topic, after which all present

are invited to discuss the topic in hand.
Frequently topics are placed on the pro-
gram by request, and those interested are
at liberty to ask questions. The discus-
sions thus become interesting, and many
problems are worked out in the kitchen
by the members during the rest of the
month. This seems to have benefited
some young housekeepers the most.

Domestic Science meetings are not as
well attended as they should be. They
are institutes for all who are interested
in the making of homes, and it is our be-
lief that domestic science, or the art of
home-making, should be taught in our
public schools, because many children are
not taught, and do not know the impor-
tance of being proficient in that which
they are expected to practice every day
of their lives, when they become the
heads of homes.

Many doctor bills are directly traceable
to improper food for both young and old.
Many children are sacrificed for want of
proper food prepared in a proper manner.
What would you think of a physician who
would not be able to prescribe proper
food for a patient? How much more im-
portant it is for the housewife to know
the elements of the various foods and
the proper way to prepare them; not only
for the sick, but for the well. The social
element of the Housekeepers' Club in the
country is a very important feature; for
it is a benefit to mingle with those with
whom you are surrounded and exchange
experiences regarding the work in which
we are engaged, for no one, be she ever
so proficient, is an expert in all lines of
housekeeping, while at the same time one
can be of great help to others who have
not been so fortunate in acquiring knowl-
edge in the culinary art. In this way a
few good matrons can be of more help
to a community in which they live than
would be possible in any other line of work.

A young lady reared in town was en-
gaged to be married to a young farmer.
Some of her lady friends in town had been
telling her of the dreary, monotonous life
she would find on the farm. After she
attended the Domestic Science meetings
and the Housekeepers' Club of St. Jacob,
she came to us beaming with joy, saying
that the making of a home on the farm
had no dread for her, because she had
seen the bright side of the farm home as
well as the dark, and that on the farm
or in town the home depended on the
home-maker, that to her was left the
workings out of the details of its sur-
roundings. To-day she is the mistress of
a home on the farm, bending her energies
to make it an ideal place to live. We all
feel an interest in her as the youngest
member of our club.

Our Housekeepers' Club strives particu-
larly to assist those that are obliged to
practice economy to make both ends
meet. Aside from wastefulness, there are
many ways that well-worn garments can
be remodeled to look respectable. You
all know how rags can be worked into
good serviceable carpets, rugs and other
articles that afford much comfort. Do-
mestic science has been taught for many
years in public schools in many foreign
countries to the great benefit of the peo-
ple. For example, take Switzerland; girls
of school age are taught sewing, knitting
and cooking. At the end of the school
year each girl has her work of that year
spread out on her desk before her ex-
hibiting the results of her work and
award prizes; according to the neatness
and merit of the work. But all girls re-
ceive a prize to encourage them to re-
new their efforts. The attendance is com-
pulsory, and some whose parents are too
poor to buy the material, will do the work
for kindly disposed people who pay the
girls for their work.

Mending is one of the principal things
taught. And small girls are of
great help to their mothers in providing
the necessary garments for the rest of the
family. The public schools of St. Louis
have taken up domestic science work,
particularly cooking. The pupils are
taught by practical demonstrations.

Written for the RURAL WORLD.

A TRIP TO KANSAS CITY.

I have lately been going a round of
pleasure. I visited Kansas City during
carnival week, and the sights to be seen
were well worth the money. The floats in
the parade were gorgeous affairs. Mem-
ory fails me when I try to remember all.
The burning of Rome was one. George
Washington with his little red coat was
another. In the last little George stood
with his father viewing the fallen tree,
laden with choice fruit. There were twenty
floats, and 20 bands, besides mounted
police. Then the trades procession was
grand, too. I do not know how many
men there were walking on stilts with
balloons and other things, but they were
representing all nations. Then came the walk-
ing vegetables. They were fixed so as to
be drawn over men's heads and shoulders.
A cabbage had the appearance of having
limbs and walking. I visited Elmwood
Cemetery, one of the largest in the city.
One of the ordinances read thus at the
gate: "No plants of flowers on graves
strictly forbidden." Oh! I thought to my-
self, what a pleasure denied to dear ones
here on earth. Then I took a second
thought. In the fall these flowers die and
the cemetery is so clean and neat. I looked
at the fine vaults and peered inside the
cold death-like room, and there you could
read the inscription and be seated if you
liked; but I dislike them; they add a ter-
ror of death to me, for I consider it a
part of death to be consigned to mother
earth. I could have seen more of the city
had I left my babe at home. Then I do
not think I could have remained over
night. When I reached home the Mexico
Street Fair was well under way. I at-
tended one day only—Thursday—it being
flower parade day. The streets were
crowded and such stock nowhere could
be found to equal it. Mr. Emmon's herd
of Short-horns and those of other breeders
of fine stock and fine poultry were some
of the attractions.

I feel sorry for that poor farmer's wife.
I have had the same feeling, time and
again, and have gotten the same rebuke
from my husband that she got from the
gentleman. Generally when I have had
such thoughts something had gone wrong,
such as burning a hard crust on my light
bread. There is no life but has some
bitter, and the more one thinks of self
the unhappier one is. I know we should
be happy if our family is well and we
have the necessities of life. I re-
member not many years ago, while watch-
ing by the sick bed of my little girl, when
her life was in the balance, I prayed that
she might be spared to me, promising
that I would never murmur at fate again.
I have had the same feeling, time and
again, and have gotten the same rebuke
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that I would never murmur at fate again.

MRS. WINSLOW'S SOOTHING SYRUP

Has been used for over 50 years
by MILLIONS OF MOTHERS FOR THEIR CHILDREN
• WHILE TEething, WITH PERFECT suc-
• cess. It soothes the CHILD, soothes the
• GUMS, ALLEYS ALL PAIN, CURES WIND,
• COLIC, and is the best remedy for DIARR-
• RHEA. Sold by Druggists in every part of
• the world. Be sure and ask for "Mrs. Wins-
• low's Soothing Syrup," and take no other kind.
• Twenty-five cents a bottle.

AS YOU GO THROUGH LIFE.

Don't look for the flaws as you go through
life;
And even when you find them
It is wiser and kind to be somewhat blind
And look for the virtue behind them.
For the cloudiest night has a hint of the
light

Somewhere in its shadows hiding;
It is better by far to hunt for a star
Than the spots on the sun abiding.
The current of life runs ever away
To the bosom of God's great ocean,
Don't set your force 'gainst the river's
course
And think to alter its motion.
Don't waste a curse on the universe—
Remember, it lived before you.
Don't butt at the storm with your puny
form,
But bend and let it go o'er you.

The world will never adjust itself
To suit your whim to the letter.
Some things must go wrong your whole
life long

And the sooner you know it the better.
It is folly to fight with the Infinite,
And go under at last in the waste;
The wiser man shapes into God's plan
As the water shapes into the vessel.

Written for the RURAL WORLD.
SUGGESTIONS FOR HUSBANDS.

How I wish I knew personally "Country
Wife." I believe I could say many things
to her which would help her in a
good line of return. I believe if our
farmer husbands of ours do not always
stop to think how closely at home we are
kept during the week, and how anxious
we are to go to the house of worship on
Sunday, where we can feed our minds on
the Word, food which our good pastor
has prepared for us, and where we can
mingle with our friends and return their
hearty handshake and greeting. How
true is the proverbial adage "a man
works from sun to sun, but woman's
work is never done." A woman has the
same routine of work day in and day out,
year in and year out. The same wash-
ing to do on Monday, ironing on Tuesday,
followed by mending, darning, scrubbing,
churning, baking, sweeping and meals to
get three times a day, no matter what
comes or how we feel.

Sometimes we grow so tired of these
duties that we grow weary of these
duties and our husbands do not sympathize
with us and give us encouraging words.
Are we women to do all the encouraging?
Are we to drop every word of cheer and
recieve none in return? I believe if our
men only had these things brought before
them often, so that they might see the
things to which their eyes have probably
been blinded, they would, I feel sure,
strive to help with words of kindness,
and take as much interest in our house-
hold affairs as we do in those of their
sphere. The little attentions which we
use to in our earlier days are some-
times forgotten. If they were renewed,
and each day renewed, how much lighter
our hearts, if not our work, would be.
Don't be afraid to begin, even if it has
been years since you caressed your wife,
or shown her the old love-like attention,
begin now and see the difference in your
home. It is love and encouragement we
all need, and must have, else we fall, our
burdens proving too heavy.

Written for the RURAL WORLD.

FOR THE HOME DRESSMAKER.

Fashions change so rapidly that there
are few homes where the remodeling of
last season's gowns does not become a
necessity, and the question to be con-
sidered is how it may be done in the most
satisfactory manner. In some large places
there are dressmakers who make a
specialty of making dresses over and de-
rive a good income from it, but many
women do their own sewing, which is a
great saving, and with the aid of good
patterns, the results are very satisfactory.
If one wishes to accomplish a great
deal of work in a short time, it is best
to have a small room set apart for the
sewing room. One cannot keep the sit-
ting room cluttered with such work as
done there, and this consideration as well
as the comfort of the family will well re-
pay the expense of heating a separate
room. There should be a good machine,
a cutting table, a large and well fitted
work basket, and a set of drawers for
keeping pieces of various materials left
from dresses and other garments, spools
of silk and cotton thread, unfinished
sewing, etc. A wire skirt form is a great
convenience, enabling one to see at a
glance whether a skirt is even all around
or not. A woman with a room fitted with
all the implements needed can accomplish
almost twice as much as one whose tools
are scattered.

When a dress is to be made over it
should be ripped apart, every stitch
picked out and the cloth sponged and
pressed before it is put together again.
Black silk should be sponged thoroughly,
then rolled smoothly on a rolling pin.
The economical woman buys good mat-
terial, then when it becomes faded or the
groves tired of the color, one or two
packages of diamond dye will make it
bright and pretty again. Navy or indigo
blue, sea blue, wine color or bottle
green are handsome, while black is al-
ways a safe choice. The brighter shades
are often preferred for children. These
dyes are not only pretty, but permanent,
and are a great help to those who must
make the best of the material on hand.

The sewing should be done as carefully
as if it were for a new garment, for the
little details make a great deal of differ-
ence.

TO MAKE A HAPPY HOME.

Learn to govern yourselves, and to be
gentle and kind to those who live with
you. Guard your tempers, especially in se-
asons of ill-health, irritation and trouble,
and soften them by prayer and a sense of
your own shortcomings and errors.
Remember that valuable as is the gift
of speech, silence is often more valuable.
Do not expect too much from others,
but remember that all have an evil nature,
whose development we must expect, and
that we should forbear and forgive, as we
often desire forbearance and forgiveness
ourselves.

Never retort a sharp or angry word. It
is the second word that makes the quar-
rel.

Beware of the first disagreement.
Learn to speak in a gentle tone of voice.
Learn to say kind and pleasant things
whenever opportunity offers.

Study the characters of each and sym-
pathize with all in their troubles, how-
ever small.

Do not neglect little things, if they
can affect the comfort of others in the
smallest degree.

Avoid moods and pets and fits of sulki-
ness.

Learn to deny yourself and prefer
others.

Beware of meddlers and talebearers.
Never conceive a bad motive if a good
one is conceivable.

Be gentle and kind with children.
Do not allow your children to be away
from home at night without knowing
where they are.

Do not allow them to go where they
please on the Sabbath.

Do not furnish them with much spend-
ing money.—Intelligence.

"GARLAND STOVES AND RANGES
were awarded highest prize at Paris Ex-
position, 1900."

The Curtis Publishing Company
Philadelphia

ence in the appearance of a gown. The
safest plan for an amateur is to cut the
lining of the waist and fit it on the per-
son for whom it is intended before cut-
ting the material. Get a good pattern if
you do not cut by chart, and follow the
directions in the minutest details, and you
can scarcely fail to obtain satisfactory re-
sults. The skirt is almost as important
as the bodice; the top is snug-fitting, and
the old-fashioned gored are easily shaped
without pleating. If it is not long enough,
the pleating may be covered with ruffles,
braids or some other kind of trimming.
The old skirt may be used for one of the
new tunics that are so stylish at present,
making a new skirt of some material
that will harmonize with it.

KANSAS HOUSEKEEPER.

Written for the RURAL WORLD.

TIMELY RECIPES.

In response to Mrs. Ella Carpenter's
request for the old-time recipe for ginger
bread, Gwendoline sends the following
one, and other valuable recipes:
ELECTION GINGER BREAD.—One
cup molasses, one cup milk, one cup
lard and a little butter, one teaspoonful
of soda, one tablespoonful of ginger and
four eggs to make a soft dough. Roll
out this thin and bake by a gentle
fire. Roll so it will fit the pan and mark
it both ways, forming thin checks.

SPANISH PICKLE.—Take one ounce of
turmeric, one ounce celery seed, one
ounce white mustard, one-fourth pound
Colman's mustard, two pounds brown
sugar, one and a half pounds of onions,
half dozen green peppers, two large heads
of cabbage, one half dozen horseradish,
one peck green tomatoes and one
gallon of vinegar. Chop the cabbage and
onions together. Add half cup salt,
mix and put in thin sack and let drain
over night. Chop the tomatoes and green
peppers and add to the cabbage. Put
the vinegar and the rest of the ingredients
in a preserving kettle, when all are hot
put in the tomato, cabbage, peppers
and onions. Stir every five minutes. Let
boil and then seal. GWENDOLINE.

We will be very glad to have other
recipes from Gwendoline's store that she
has on hand.

Written for the RURAL WORLD.

SOFT GINGER BREAD.

Mrs. Ella Carpenter asks for a recipe
for ginger bread. One cupful sugar, one
cupful molasses (sorghum preferred), half
cupful butter, half cupful lard, two eggs,
one cupful sour milk, four cupfuls flour,
one tablespoonful soda, one tablespoonful
ginger, one teaspoonful cinnamon, half
teaspoonful all-spice, and one nutmeg.

But it is a good one. Try it. I have a
good recipe for ginger cookies if you
desires it. MARY.

Ashley, Ill.

CANNING PUMPKINS.—Mrs. C. C.

Kreker, of Franklin Co., Mo., asks for
a recipe for canning pumpkins.
The following method has been used in
our own home with most satisfactory
results. Pumpkins that were known to be
of the best varieties were selected, tak-
ing those that were perfect. The shell
was removed and then the pumpkin was
cut in small pieces and cooked thorough-
ly, adding water as needed. The pieces
were then put in a sterilized quantity of
water to prevent the milk from adhering
to the bottom of the kettle until it was
heated enough to start its own juices.
Salt slightly. It may be also sweetened
a little, if desired. When well cooked put
in glass jars while it is at the boiling
point, and seal as you would any other
fruit. We always cooked the pumpkins
in a water bath, and the result was
very satisfactory. The pieces were then
put in a sterilized quantity of water to
prevent the milk from adhering to the
bottom of the kettle until it was heated
enough to start its own juices. Salt
slightly. It may be also sweetened a
little, if desired. When well cooked put
in glass jars while it is at the boiling
point, and seal as you would any other
fruit.

SWEET POTATO PIE.—Two cups of
flour, one-half cup of butter, one-half cup
of milk, one-half spoonful of baking pow-
der (or if sour milk is used a small pinch
of soda), a little salt. Mix together one
cup of grated coconut, one cup of mashed
sweet potato, one cup of sugar, one tea-
spoonful each of cinnamon and ground
cloves, two cups of sweet milk, two eggs.
Line well-greased pie plate with the paste
and pour into potato preparation. Bake
in moderate oven 25 minutes, or until pie
looks a golden brown. This preparation
will make two good-sized pies.

A COUNTRY SUNDAY.

I am always very well pleased with a
country Sunday and think it keeping in
the seventh day were only a human insti-
tution, it would be the best method that
could have been thought of for the polish-
ing and civilizing of mankind. It is cer-
tain the country people would soon de-
generate into a kind of savages and bar-
barians were there not such frequent re-
freshment in a stated time, in which the
village meet together with their best
faces, and in their cleanest habits to
converse with one another upon indifferent
subjects, hear their duties explained to
them and join together in adoration of
the Supreme Being.—Joseph Addison.

TO MAKE A HAPPY HOME.

Learn to govern yourselves, and to be
gentle and kind to those who live with
you. Guard your tempers, especially in se-
asons of ill-health, irritation and trouble,
and soften them by prayer and a sense of
your own shortcomings and errors.

Remember that valuable as is the gift
of speech, silence is often more valuable.
Do not expect too much from others,
but remember that all have an evil nature,
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Philadelphia

Poultry Yard.

MISSOURI POULTRY ASSOCIATION.—
E. C. Coddling, President, Sedalia, Mo.;
Mrs. E. A. Cress, Secretary, Carrollton,
Mo.

MISSOURI POULTRY MEETINGS AND
SHOWS.

State poultry meeting and show at Fay-
ette, Mo., December 10-14, 1899. Mrs. E.
A. Cress, Carrollton, Mo., Secretary.
North Missouri Poultry Show at Kirks-
ville, Mo., December 2-7, 1900. F. M. Buck-
ingham, Kirksville, Mo., secretary.
Grand River Valley Poultry Show at
Albany, Mo., November 13-14, 1900. R. R.
Fench, Ford City, Mo., secretary.
Northeast Mo. Poultry Show at Bowling
Green, Mo., December 2-6, 1900. L. T. Sand-
erson, secretary.

BUY EARLY.

Editor RURAL WORLD: A breeder and
shipper of pure-bred fowls, who keeps
well up to date, has many and varied ar-
rives of information concerning the con-
dition of the industry, not only in his own
locality, but also over a vast territory
with which he is in touch by correspond-
ence with its leading breeders. He meets
them personally either at his own or their
yards, at poultry shows, etc. It is a fact
that two or more poultrymen seldom, if
ever, come in contact, even for a few
moments, without passing a few words on
the subject in which they are mutually
interested. Standing thus with my finger
on the pulse of the poultry business, I
feel I am in a position to offer those who
have not the same opportunity, that which
Tiedemann says: "Has no place in the
scheme of the Universe, except to
ease the mind of the adviser and to an-
noy the advised"—advice.

The poultry crop is short. Sales
have started in very early. Many breed-
ers will be sold out of surplus stock long
before the season is over. With the sup-
ply short and the demand increasing,
prices are bound to range higher later in
the season. Those who wait until late to
buy will not only have the higher prices
to pay, but will have a very much re-
duced supply to choose from. So my ad-
vice would be, buy early.

Gentry Co., Mo. R. R. FRENCH.

GLENN RAVEN EGG FARM NOTES.

Editor RURAL WORLD: The past
week has been a busy one with us. We
have cleared out the large stone and
concrete chicken house, taking out and
disposing of the dirt, the litter and droppings;
putting in several wheelbarrow loads of
fresh earth to each room. We then cov-
ered this earth with leaves. The whole
house was given the usual general re-
novating and is now in pretty good shape
for the winter.

I caught some 25 Brown and White Leg-
horn pullets and put in two of the rooms.
The rest of the flock are in the other
rooms. I have been laying them out in
pairs, but other work was pressing and
these pullets were let run in a flock
of 150 fowls, and all fed together. No
fowls will do their best laying when kept
together in such large numbers.

I bought 50 bushels of oats, 2,000 pounds
of Kaffir corn and 200 pounds bran and
shipments by express. I have commenced
feeding the housed pullets for eggs. I fed
whole grain in the leaves during the fore-
noon, and commence feeding oats and
bran and shipstuf in troughs shortly
after noon. The cooked food (turnips,
potatoes and oats) is the last feed of the
day. Plenty of fresh water, sharp grit
and lime (old plastering) are kept in
the pens of them at all times. These things
are all very essential to success in egg
production with fowls in pens. I am
slowly getting my stock in shape to have
purely mated eggs with which to set the
incubators, so that they will hatch the
first day of the new year. My concrete
incubator house is about ready now to
receive the machines. I think I will have
no trouble getting a good hatch in this
house, no matter how changeable the
weather outside. My latest purchased ma-
chine is calculated to hatch even out-
doors, come what may in the way of
bad weather, but I thought best to build
a good house for all.

I have had several lady callers this
week, and all operators of incubators. I
discovered by conversation with them that
they all do not understand the practical
methods of successfully handling their
machines. I am not an expert, but I am
learning all the time. I asked the ladies
if they handled the eggs much, and cooled
them down. They said, "we turn them
twice daily." To simply turn the eggs
twice a day is not sufficient. They must
be cooled down considerably. To give the
exact time that eggs should be cooled
is impossible, as the time of year and
condition of weather cuts a considerable
figure. We all know that the sitting hen
leaves the nest in either warm or cold
weather, and sometimes long enough for
the eggs to all feel quite cold. I have
found that at night in a house without
a particle of warmth about it, even at
the bottom of the center, and still the
eggs would hatch well.

I have noticed all along the line of
my chicken culture that a hen that steals
her nest out, lays her eggs as nature de-
mands, sits upon them as she sees fit,
leaves them in search of food and stays
off long enough each time to hunt her
own food, would beat the hens hatching
all

Coughs and Colds

Dr. A. L. SCOVILLE, who has for many years been known to the public throughout the United States as an inventor of remedies for the cure of coughs and colds, recommends ALLEN'S Lung Balsam as a powerful and reliable remedy for the cure of these ailments. This Balsam has been used by his own family with great success, and is the only one of its kind that is so well adapted to the cure of these ailments. It is a powerful and reliable remedy for the cure of these ailments. It is a powerful and reliable remedy for the cure of these ailments. It is a powerful and reliable remedy for the cure of these ailments.

ALLEN'S Lung Balsam

SO LONG AS OUR WILLS are outside of the Trust, shouldn't you buy PAGE FENCE and help keep them out? L. R. ROBERTSON, Broomfield, PAGE FENCE WORKS, FENNER CO., ANDERSON, MICH.

FENCE! FENCE!

Strong, Chain-link, and other types of fencing. Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

WORMS

Kill More Worms! Lots of good remedies for the cure of worms. Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

LEE'S HOG REMEDY

Is a mixture of the best worm powder with the most powerful and reliable remedy for the cure of worms. Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

I Can Sell Your Farm

or country property no matter where located. Send description and selling price, and learn my success. J. P. VICKERS, 101 N. Main, St. Louis, Mo.

POLAND-CHINAS.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

BLACK U. S. AND TUCUMSEH

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

VIVION & ALEXANDER, FULTON, MO.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

POLAND-CHINAS

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

POLAND-CHINAS

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

ROSE HILL HERD OF DUROC-JERSEY HOGS.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

BERKSHIRES.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

SICK DON'T PAY.

Five Cents Per 100. Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

SHROPSHIRE RAMS, RAMS, AND EWES

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

SHROPSHIRE RAMS,

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

MERINO SHEEP! Both American and Delaine.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

FOR SALE.

Write for catalogue and prices. RYAN & SONS, 101 N. Main, St. Louis, Mo.

The Pig Pen.

A LEAD CURE. For the Chicken Eating Disease.

A BARRY CO. Mo., subscriber asks the RURAL WORLD to tell him how to prevent a sow from eating chickens.

After a hog has experienced the exquisite gastronomic pleasure of eating tender fies, juicy pullets and fat old hens, hot from the roost and poultry yard, and has allowed this epicurean delight to overcome her power of self-control and she loses her self-respect to the extent that she will improve every opportunity to gratify her diseased appetite, there is but one cure for the disease, and that is by inoculating her system with the germs of a disease that will destroy those of the other one. These counteracting germs are found in various substances, one of which is lead.

An effective method of applying the lead cure is to take one tablespoonful of a mixture of niter, sulphur and charcoal in the proportion of one-sixteenth of niter, place this in a long, strong steel tube of small caliber, place over that a small wad of paper and then press down firmly to the bottom of the tube, using for this a long stiff rod. After this mixture is in place, take a piece of lead about the size of a small hazel nut and nearly equal in diameter to that of the tube, press around this a piece of cloth and press this into the tube by means of the rod. The piece of lead should fit rather closely in the tube.

On the lower end of this tube, where the dose of medicine is placed, there should be a very small vent in the form of a nipple, through which a spark of fire may be passed to the mixture mentioned. There are very nicely constructed implements on the market for use in administering these doses of lead, and which operate very effectively. The doses, too, are put up with the mixture in containers or capsules of suitable size and shape, so they can be inserted in the ear of a pig, which may be likened to a hypodermic syringe on a large scale, and these provided with a mechanism which enables the operator to inject the dose of lead in any portion of the patient's anatomy.

Equipped with one of these administering implements and this properly charged with the remedial agent, the leader pig, the operator should get close to the patient with depraved appetite (there is no danger in this if you are not a spring chicken, a goose or a quack), and, holding the instrument by the proper end (the one which will enter the ear), place the instrument in line with the eye and a point on the patient's head about midway between and two inches above the eyes, manipulating the mechanism, and the pill will readily pass out of the tube and find a lodgment in a spot that will be a proper nidus for the germs it is desired shall be introduced into the system as a means of counteracting the chicken-eating disease.

If the operation is skillfully done, one who has never seen this remedy applied will be astonished to note how rapidly the patient's appetite seems to get to work. In an instant the patient, even if she were in the very act of pouncing on and devouring a chicken, will stop and seem to lose all desire for chicken, and will become calm and quiet, and she will never after trouble the feathered bipeds.

The remedy is a sure cure, a genuine no-cure-no-pay cure; the only trouble is that the patient's constitution is apt to be ruined by the suddenness of the treatment.

If any of our readers know of a more effective way to cure a hog of eating chickens, we will be pleased to hear from them.

TAKES C. D. L. TO TASK. And Comments Artichokes, Rape and Cow Peas.

Editor RURAL WORLD: Seeing a communication in the R. W. of Oct. 24, signed C. D. L. Brown Co., Oct. 24, artichokes as a food for stock. I wish to make a few comments thereon. I do not know what breed of hogs C. D. L. or his neighbor raises that are afraid of artichokes. My pure bred Chester Whites and Duroc-Jerseys are very fond of them; will root them up themselves, and eat them without washing. I have about three acres in artichokes and I turn the hogs on them about Oct. 1. My brood sows and their young families are now turning the ground and hunting for the to them, delicious tubers which fill almost every inch of soil; and the little pigs are always watching for and getting their share. On the three acres I usually winter from 12 to 15 brood sows and let my hogs run on them also. After the sows have good condition for farrowing in March and April; the little I have my spring pigs come. The young pigs are lively as young rabbits. I always give an ear or two of corn to each hog twice a day during the artichoke season, from Oct. 1 to May 1. When the ground is frozen, which is seldom the case in this climate, and with the protection of the artichoke tops, of course, I feed more.

Put it down in black and white that an artichoke patch in the winter is for a lot of hogs what a good clover field is in the summer, and I guess C. D. L.'s hogs would not turn up their noses at clover unless he has a very fastidious set of hogs. If he will send to me, I will send him a pig that will root artichokes and eat them, too; and as one hog is very apt to eat what he sees another eat, it will teach his hogs to eat them, and thus be a big saving to him. I will also insure his hogs to come out in the spring fat and sleek. I never knew a hog to have cholera that had access to artichokes. They keep the stomach and kidneys in good order. I have no artichokes to sell for seed.

I tried rape this spring, and think it excellent for sows with young pigs. The only trouble was I did not have enough sown. I also tried a small patch of speltz. It promised a very fine crop until about the time it began to head, and then Mr. Chinchy came along for his share, and by the time he got through with it I did not have enough left to tell the tale.

I tried five varieties of stock peas. The Whippoorwill and Prolific cow pea did well. I have been cutting and hauling out a small load, just with wagon, and giving to my hogs, and I never had a bunch of hogs do better; but, alas! I fed the last two or three days ago, and now they have to do without; but as they are about ready for market, I guess they will pull through. Next year, Providence permitting, I will plant more. My hogs would leave corn any time for peas, and the cows are very fond of them. The

latter would eat the old dry vines, left by the hogs, when they were running in good pasture. Horses eat them ravenously. Let me say to the raisers of stock, plant artichokes. Plant peas. Sow rape. Mrs. N. has a variety of experience with her turkeys, ducks and chickens. She is raising Mammoth Bronze turkeys, Pekin ducks, Barred Plymouth Rocks, Light Brahmas, B. Langhans, Buff Cochins and Minorca chickens, and I think she has some very fine ones, but will let her tell the sisters about her trials, fortunes and misfortunes in her own way when she gets ready. We have had a fine autumn. Pastures are rich and green.

Bates Co., Mo. THOS. B. NOLAND.

CHET STEPHEN'S RED RUNTS. Editor RURAL WORLD: Having read Mr. Chet Stephen's communication in your issue of Oct. 31 regarding Duroc-Jersey hogs, I would like to point out what seems to me to be mistakes and also some truths in the article.

He says, "I have none to sell, and have no friends that have." I think I ought to be his friend, because I am his neighbor.

I have learned by experience what he has been convinced of by accident, namely, that the Duroc-Jerseys are a fine breed. I also advocate and practice line breeding and am an admirer of and advertiser in the RURAL WORLD.

Mistake number two was in getting the runts of that litter. I got the two choice ones, both gilts, and bred them to a fine male pig just received from Iowa. They are not for sale, but I expect something fine from them for the next season's trade.

As Mr. Stephens says, the red hogs will have more pigs to the litter than the average of other breeds, but he is in error when he says breeders' advertisements of Poland-Chinas are about three to one of all other breeds. I have been three years devoted to agriculture and live stock, the RURAL WORLD and two others, and I find, not counting public sales, 26 Poland-Chinas ads. and 43 Duroc-Jersey ads. But he is right when he says Duroc-Jerseys are increasing, and I think they will continue to do so. I would not be surprised to yet see my friend Stephens advertising them. Mr. Stephens says further, "There is but one thing about this breed that I do not like, viz., it must be kept pure to produce good results, while Poland and Berkshire hogs make an excellent cross. If you cross a Duroc-Jersey with any other breed you will have a lot of grizzly red, black and white spotted pigs, and shippers don't like them." What a funny objection from a man who keeps breeding purposes a grade animal with a law that would send him to the pen. Possibly he means to the pig pen with a bucket of slop from the kitchen. A Cherokee, Kan., breeder says there is a growing demand for Duroc-Jerseys males to cross on Poland-Chinas sows. It being claimed that the cross is a superior one. I could find hundreds of men throughout the corn and hog belt who raise hogs for the market that will make the same claim. I have sold a great many males for this purpose, and whenever reported the results were satisfactory. It is a too common error to call everything that is black or black and white Berkshires or Poland-Chinas, and everything white Chester Whites, when many of them are pure Duroc-Jerseys, and pure blood since anyone now living can remember. It may be these hogs will produce such results as Mr. Stephens speaks of, but if a pure bred hog of any breed is used on them and the best gilts selected and bred to a good hog of the same breed, and this kept up for three years, there would be a great improvement in the Duroc-Jerseys could be used in this way with good results.

Now for a little history of the "runts." In February, 1899, Mr. James, a neighbor of mine, who is a gardener and berry grower, and who says of himself that he is not an experienced hog raiser, bought a red gilt of me. She farrowed ten pigs and raised seven. Mr. James sold two at weaning time for what the gilt cost him, and butchered five that at nine months dressed over 200 pounds each. He bred the sow again, and she farrowed 13 pigs and raised ten, two of which were the runts spoken of. Mr. James sold the sow in September to the butcher, when she weighed 45 pounds, and was not fat, but would have readily weighed 300 pounds. Mr. James told me she did not eat ten bushels of corn in raising the litter and getting ready for market, but they had the refuse from the garden truck and the slops from the kitchen. The sow was kept in a dry lot.

It is but fair to state that the blood of many of the most noted sires of the breed flows through the veins of Mr. Stephens' runts. R. S. THOMAS, Carthage, Mo., Nov. 4.

J. E. HAYNES, the Duroc-Jersey swine and poultry breeder of Ames, Ill., reports his stock in good shape, with a splendid lot of gilts and boars of spring farrow that he thinks ought to please anyone wanting something fancy. Look up Mr. Haynes' ad. and then write to him. His stock is good and he will try to please you.

I have tried the Snoddy Remedy and am well pleased with it. Last summer I had about 200 head of hogs, and lost about 200 head of hogs to the cholera, several having died. I used the Snoddy Remedy on only three or four small ones. I believe, if properly used, it will save nearly all sick hogs.

President "State Columbus Bank," Columbus, Nebraska.

THE C. N. SUTTER public sale of Poland-Chinas came off as advertised, at his farm, near Hopdale, Ill., on November 2. The weather was fine and attendance good, and the best animals brought good prices. Following is a list of buyers who paid \$20 and over:

1. Dan Hallowell, Farmer City, Ill., \$25.00
2. Burgess Bros., Broomfield, Ill., \$20.00
3. Dan Hallowell, \$20.00
4. Scott & Beislerberger, Boyton, Ill., \$20.00
5. Wm. Wilson, \$20.00
6. Dan Hoffinger, Minier, Ill., \$20.00
7. A. G. Woodbury, Danville, Ill., \$20.00
8. Maxwell Shaw, Tremont, Ill., \$20.00
9. Burgess Bros., \$20.00
10. W. R. Loveless, Belflower, Ill., \$20.00
11. F. R. Wilson, Morning Star, Iowa, \$20.00
12. Burgess Bros., \$20.00
13. Burgess Bros., \$20.00
14. Nick Staker, Hopdale, Ill., \$20.00
15. Dan Hallowell, \$20.00
16. H. Heifer, Tremont, Ill., \$20.00
17. E. L. Hunter, Delavan, Ill., \$20.00
18. Joe Weaver, Hopdale, Ill., \$20.00
19. Wm. Wilson, \$20.00
20. F. Ogden, Minier, Ill., \$20.00
21. C. E. Darnell, Armstrong, Ill., \$20.00
22. F. R. Wilson, \$20.00
23. Tom Benoit, Vermont, Ill., \$20.00
24. J. M. Harvey, Corvill, Ill., \$20.00
25. F. R. Wilson, \$20.00
26. Wm. Ralesbach, Tazewell, Ill., \$20.00
27. Christ Staker, Tremont, Ill., \$20.00
28. F. R. Wilson, \$20.00
29. A. L. Brennenman, Hopdale, Ill., \$20.00
30. John Funk, Jr., Heyworth, Ill., \$20.00
31. Burgess Bros., \$20.00
32. Chas. Ralesbach, Hopdale, Ill., \$20.00

Forty-eight head brought \$1,422, nearly \$30 per head.

THE STANDARD RECORD.

Volume 14 of the "Standard Poland-China Record" has been received from George F. Woodworth, secretary of the Standard Poland-China Record Association, Maryville, Mo. This volume contains the records of boars numbered from 21,567 to 22,782, inclusive, and sows numbered from 22,783 to 24,000, inclusive. There are also the usual indices of breeders, owners and animals, and list of transfers. The volume is well edited, well printed and well bound, and is a credit to the Poland-China hog.

SUNLIGHT IN HOG PENS.

The Maryland Experiment Station calls attention to the fact that "one point is commonly lost sight of in hog growing, and that is that the hog is an animal to which sunshine is just as essential as it is to the corn plant. Neither corn nor pork can be successfully produced without plenty of sunshine. In this latitude and further north this sunshine in winter will have to be brought into the pens through glass, but further south under normal conditions it is only necessary to face the pen to the south; allow the sun's rays to reach to the back of the pen on beds and give good shelter and protect from the north and west winds."

In constructing the hog pen for the station the following points have been observed:

1. The pen is faced to the south so as to permit the rays of the sun to shine upon the beds of the pigs at the extreme rear end of the pen in the winter season and also to give shade in that portion in summer.

2. The lattice construction between the pens at the ends and rear admit of a free circulation of air in warm weather.

3. The location of the manure pit in the center and below the level of the sleeping and feeding floors, and all the drainage towards it, aids materially in maintaining a proper sanitary condition.

4. Swinging gates close the pigs into their beds while the manure is being loaded.

5. The manure pit is concreted, which enables the saving of all liquid excrements which, when the pigs, amounts to 50 per cent of the total manure value.

6. Feed bins are placed in front of each pen, which facilitates feeding and enables keeping different feeds for each pen if desired.

E. E. AXLINE, Oak Grove, Mo., writes regarding his recent Poland-China sale: Enclosed find check for amount of bill rendered; also list of sales for \$20 or over. Seventy-eight head brought an average of \$30.10. The day was rainy, the roads muddy, and trains all late. The C. & A. train from the east did not arrive until late in the evening, and several good buyers from Eastern Missouri and Illinois did not get here at all; consequently attendance was not as large as usual; only about 400 present.

Taking all things into consideration, the sale was reasonably good. Wishing the RURAL WORLD success I am yours truly, E. E. AXLINE.

LIST OF SALES:

1. J. B. Pallette, Oak Grove, Mo., \$21.00
2. W. H. Manly, Wheeling, Mo., \$21.00
3. G. H. Carpenter, Hamburg, Mo., \$21.00
4. J. W. Eoley, Auxvasse, Mo., \$21.00
5. W. H. Manly, Wheeling, Mo., \$21.00
6. John Gruner, Parnell, Mo., \$21.00
7. M. C. Holden, Mo., \$21.00
8. G. E. Leslie, Memphis, Mo., \$21.00
9. Oviatt Bros., Kansas City, Mo., \$21.00
10. T. H. Stittin, Kansas City, Mo., \$21.00
11. H. B. Ingham, Lucas, Mo., \$21.00
12. C. T. Myers, Centerville, Mo., \$21.00
13. T. H. Stittin, Kansas City, Mo., \$21.00
14. W. S. Combs, Yukon, Okla., \$21.00
15. Warren Bros., Meadville, Mo., \$21.00
16. E. C. Branch, Blue Springs, Mo., \$21.00
17. R. T. Atkins, Parkville, Mo., \$21.00
18. A. N. & Z. Johnson, Sappington, Mo., \$21.00
19. J. B. Stitzer, Richmond, Mo., \$21.00
20. C. T. Myers, \$21.00
21. Oviatt Bros., \$21.00
22. A. T. Shattuck & Co., Prosser, Neb., \$21.00
23. A. C. Fitch, Columbus, Mo., \$21.00
24. W. J. Simms, Bowdoy, Mo., \$21.00
25. W. J. Stitzer, Richmond, Mo., \$21.00
26. Geo. Gallispe, Oak Grove, Mo., \$21.00
27. W. A. Johnson, Buckner, Mo., \$21.00
28. H. M. Marshall, Holden, Mo., \$21.00
29. G. B. Carpenter, \$21.00
30. M. P. Holden, Mo., \$21.00
31. A. N. & Z. Johnson, \$21.00
32. W. N. Winn & Son, Kansas City, \$21.00

33. T. H. Mastin, \$21.00
34. D. H. Loeble & Logue, Raymore, Mo., \$21.00
35. Geo. W. Null, Odesa, Mo., \$21.00
36. R. W. Williams, Burdette, Mo., \$21.00
37. J. B. Stitzer, Richmond, Mo., \$21.00
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78. J. B. Stitzer, Richmond, Mo., \$21.00
79. J. B. Stitzer, Richmond, Mo., \$21.00
80. J. B. Stitzer, Richmond, Mo., \$21.00

rain, and if the boards are grooved about an inch from each side and battened it makes quite a passable roof, though, of course, not equal to shingles. There is a hog house not far from the writer's residence whose walls are made of baled hay which has been in use for several years, and appears to be good for several more. This kind of building, of course, is but a makeshift, and should be succeeded as soon as possible with something better and more permanent.

A very good building may be made with sheet iron by putting up just a frame work of scantling and then nailing the iron on, but this, unless galvanized, must be kept painted every year or two, or rust will soon spoil it. This sheet-iron covering costs about \$1 per square of 100 feet and if kept properly painted is good for either roofing or siding. We have in use a shed made of lumber which is very satisfactory. It is 24x8, 8 feet to the eaves, and open to the roof. This gives opportunity for good light and good air, two things absolutely necessary for good health in the flock in winter. If it is wanted to put hay over, the sides can be raised to the desired height, but the floor must be tight to prevent trash from falling into the wood. Wide, planed boards make excellent siding for a sheep house. These should be nailed on perpendicularly, and battened sufficiently to prevent draughts. Boards nailed on this way will greatly outlast those nailed on horizontally, and if they are nailed to the frame every four feet, it will be enough. Lath do very well for battens for sheep, as they are not so hard on buildings as larger stock.

In making doors for a sheep house, be sure and not have the doorways less than eight feet wide, so as to avoid broad ewes crowding in going out and in, or some abortions are likely to follow. Floors of dirt will do well enough providing they are kept dry, and each grown sheep should be provided with 6 square feet of floor room, and should have from 14 to 16 inches of feeding space, according to size. Be sure to have the roof waterproof, the building free from draughts, the feed racks and troughs clean, and the yard thoroughly well drained; then, with proper feed, one winter with the flock in good health and with good profit.

SUGGESTIONS FOR THE SHEEP-BREEDING SEASON.

We notice a decided tendency among a majority of farmers who breed grade sheep and lambs for the market to buy rams of the particular breed that appears at the time the most popular. Our Michigan flockers are so mixed in blood that it would seem very unwise to resort to further intermixture of blood. We should advise sheep raisers in general to follow some settled system of breeding. Looking at the question, says the writer in "Michigan Farmer," from the standpoint of wool production more particularly, grade or cross-bred rams should not be used. If you have a flock of grade Shropshires, Southdowns or Hampshire ewes that do not shear well enough to please you, get a Merino ram, and a good heavy-fleeced one, and your lambs from such ewes will be much improved in fleece and similar in characteristics to the familiar cross of the Shropshire ram on the grade Merino ewe. I fear the tendency among sheep raisers who have been grading up toward a mutton sheep has been to pay too little attention to the fleece, and a cheap grade of rams has been used. The first cross of the mutton ram on grade Merino ewes works such great improvement in mutton qualities that farmers have overestimated the strength of blood of these mutton breeds. Many have been led to think after such first cross has been made, that most any half or three-quarter blood ram will do. The result in many cases has been that the average quality and quantity of the fleeces has depreciated. And there always has been a tendency among the mutton breeders, as they say, they have graded their flocks up, and their sheep are not as good now as after the first cross; they say their flocks are light shearers and not hardy. The lesson that to grade a flock up successfully it is necessary to get a better ram each successive generation, does not seem to be well learned. If it was, then we should have less complaint of flocks "running out," "shearing light," and "not hardy." Permit me to add one more word of caution to breeders of pure-bred sheep. If at considerable expense of time and money you have bred up a pure-bred flock that possesses merit and money-making qualities, do not hastily discard it at a sacrifice, that you may become a breeder of the most popular sheep at the moment. It may do good for breeders of large experience and plenty of capital to speculate and speculate, but the mass of breeders had better go slow in making changes. We do not recommend the single and of sheep that does not fit some special purpose and for

which there is not a demand at paying prices. Establish a reputation for breeding a certain class of sheep and be slow to destroy that reputation by changing breeds.

SOME WRONG NOTIONS ABOUT DOUBTLESS A goat is easily satisfied with food. It is one of the animals with which a sheep, which is a sort of half-brother of the goat. And some people would try and delude the ignorant into the belief that sheep may be kept on the coarse, rough weeds of the back end of a farm or on bare and limited trees in the wood lot. Perhaps a goat might live so. In fact, we will readily admit that it will live, but no one should think of keeping goats merely alive and expect profit from them. As all those who take a fancy to the ancient axiom of the philosopher, "Out of nothing comes," which is only the English of a far more ancient adage which says, "Ex nihilo nihil fit," as was said by that old Roman philosopher Ovid 2,000 years ago—the man who keeps goats on nothing will just get his expenses back, and that is all. He will have nothing for his pains.

Nothing was made in vain. There is a use for everything that has been created, and it was the strict injunction to mankind when the world and all that was in it was turned over to him for his use, to be diligent and multiply and replenish it.

And a part of the live stock with which his possession was furnished was a liberal supply of goats.

And there always has been a use for them. There are about fifty millions of them in the world, and every one is turning the goat into a valuable animal, and cheese is made from the milk; some contribute their hides, of which is manufactured the valuable Douglas leather (of which children's and women's shoes are made); and a great many give their brilliant, glossy wool-mohair, we call it—for the making of shawls and other garments for women. This last is the beautiful Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit was to come, first and last, which is by work and care and skill. Angora, of which the stock is rapidly increasing, and for which there is a wide and numerous place in our great and skillful patient perseverance, right to keep goats for profit that the profit we come to him only in the same way. It was said all profit

